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BUSINESS WEEK

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While airplanes make big headlines, September brings big news from the auto plants.

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ALLIS-CHALMERS PUMP PAYS FOR ITSELF IN 8 MONTHS!

Northwest Paper Company Replaces Old Pump with New Allis-Chalmers Centrifugal Pump . . . Saves Its Cost in Eight Months! Find Out Why It Pays to Modernize with the Equipment that Pays for Itself!

Here's a sensational economy story that hits home to every plant executive who wants to get increased production . . . at less cost!

At the Northwest Paper Company plant in Brainerd, Minnesota, they were using an old belt-driven fan pump to handle $\frac{1}{2}$ of 1% stock. By actual test they found the old pump required 71 brake horsepower . . . a figure they realized was too high by modern standards.

And because they wanted to make the most savings possible . . . and be "set" for years to come . . . they put in an Allis-Chalmers Centrifugal Pump, connected to a 25-hp Lo-Maintenance Motor.

But the best news was yet to come. For when they made their tests on the new equipment, here's what they found . . .

Saves \$1,700 Per Year!

The new Allis-Chalmers Pump actually threw more stock and yet the test showed it required only 23 brake horsepower! Compared to 71 of the former pump, this means a saving of 48

Another true case history from the Allis-Chalmers files that proves "IT PAYS TO BUY THE EQUIPMENT THAT PAYS FOR ITSELF!"

brake horsepower . . . an actual dollars and cents saving of \$6.48 per day!

Measured in terms of long-time economy, the new unit paid for itself in eight months . . . and went right on piling up savings after that of better than \$1,700 a year . . . a clear-cut profit!

These are saving figures you can't afford to ignore. If you have old equipment in your plant . . . if you want to know how to replace that equipment with new units that pay their own way . . . you'll want to hear the Allis-Chalmers story.

For Allis-Chalmers equipment, with 90 years of experience back of it, is

INSTALLATION OF THIS ALLIS-Chalmers Centrifugal Pump with 25 hp Lo-Maintenance Motor, is bringing a savings of \$6.48 a day to the Northwest Paper Company! Read this interesting story of increased production and economy!

built to beat modern problems . . . make workers' jobs easier . . . add to your year's profits!

The trained engineer in the Allis-Chalmers district office near you will be glad to discuss your problems with you. Call him today. Or write to Allis-Chalmers, Milwaukee, Wisconsin.

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PRODUCTS ENGINEERED TO PAY FOR THEMSELVES

Electrical Equipment • Power Transmission Equipment • Steam and Hydraulic Turbines • Blowers and Compressors • Engines and Condensers • Centrifugal Pumps • Flour and Cereal Mill Equipment • Boiler Feedwater Treatment • Saw Mill and Timber Preserving Machinery • Crushing, Cement, and Mining Machinery • Power Farming Machinery • Industrial Tractors and Road Machinery



ALLIS-CHALMERS

MILWAUKEE • WISCONSIN



Here's the "One" for '41



See the Brilliant New
Plymouth—Magnificent
new Artistry of Design—
New Powermatic Shifting
—New 4-Way Step-Up
in Performance—New
Fashion-Tone Interior—
19 Great Advancements!



Try Powermatic Shifting—vast reductions in driving effort—with actual elimination of certain of the shifting motions of normal driving.



Fashion-Tone Interior—a miracle of color, fabric, appointments. Imagine—sumptuous 2-tone upholstery in the Special De Luxe Plymouth.



4-Way Step-Up in Performance—giving you increased horsepower and torque, new transmission and new axle ratios. Drive this traffic master.

IT'S A PLEASURE to remind you that this stunning new 1941 Plymouth—so beautiful, so long, wide, low-swung—is a low-priced car!

Inside, you'll find a glamorous new *Fashion-Tone Interior*—a miracle in color, fabric, appointments. And you'll discover a new delight in Plymouth's new 4-way Step-Up in Performance...giving you new mastery of hills and traffic!

And, for 1941, Plymouth announces *Powermatic Shifting*...a new Oil Bath Air Cleaner that adds to engine life and economy...new Engine Bearings which are 2 to 3 times longer-lived...new Ignition

Protection to assure fast, easy starts!

See and drive this Big Beauty today at your nearby Plymouth dealer. Plymouth Division of Chrysler Corporation.

OTHER NEW FEATURES

- NEW COUNTERBALANCED TRUNK LID—goes up or down easily at a touch.
- NEW SAFETY RIMS ON WHEELS—prevent "throwing" of the tire in case of blowout or puncture at high speeds.
- NEW SEALING throughout body against dust, water, heat and noise.
- CHOICE OF 11 SMART NEW COLORS at no extra cost. New 2-tone color combinations available on the Special De Luxe sedans.



A Republic Conveyor Belt

**FOR ADDED
PERFORMANCE
AND WEAR-
RESISTANCE**



In Each Class of Service

● Normal or extreme, light or heavy duty . . . regardless of the service conditions in industrial operations . . . Republic fits the job with conveyor belting of the correct cover quality and thickness, weight of fabric, number of plies and other structural elements for most economical performance.

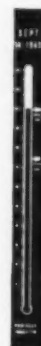
Since the days when this method of handling materials was in its infancy, Republic has been a major factor in its development. All facilities of plant and personnel have been applied to the task of increasing the efficiency and extending the advantages of belt conveyors. The resultant economy for users of Republic Conveyor Belting is a matter of record. All Republic Conveyor and Elevator Belts are Provar Processed—exclusive treatment for permanent protection against mildew. REPUBLIC RUBBER DIVISION OF LEE RUBBER AND TIRE CORPORATION, YOUNGSTOWN, OHIO.

ORDER REPUBLIC RUBBER PRODUCTS
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HOSE • BELTING • PACKING • MOLDED GOODS



THIS BUSINESS WEEK



BUSINESS WEEK



The previews of the 1941 auto models are winding up, and the big show is scheduled for Oct. 12. Auto manufacturers are swinging into full-tilt production (see this week's cover). Big news of the week was the answers Ford gave to two questions—a yes on airplane-engine production (page 8), a no on a six-cylinder Ford car (page 16).

Arnold and Defense

ASSISTANT ATTORNEY GENERAL THURMAN Arnold and his riproaring antitrust drive have run smack up against the defense program. Arnold wants to continue his drive. The Defense Commission wants to keep all the industries essential to its procurement program happy and cooperative. Though Arnold and the commission aren't so far apart that their differences can't be reconciled, there's a big obstacle to such a rapprochement in the personal feud now in progress between Arnold and Leon Henderson, who watches industrial prices for the Defense Commission—page 15.

British Buying

GREAT BRITAIN is now placing war orders here at the rate of \$170,000,000 a month, but if London would agree to conform to American munition designs,

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PUBLICATION

orders would probably go far above that. A review of British purchases during the first year of the war, and a report on the present dilemma of U. S. arms-makers—page 17.

Loans for Small Business

THE SECURITIES AND EXCHANGE Commission reports to the Temporary National Economic Committee on how to help small business men in need of new capital. The basic point to be settled first, however, is what kind of money small business needs—page 22.

Summer Radio

RADIO CAME THROUGH the summer months this year without any sign of the usual summer slump. As a matter of fact, radio had a boom this summer. In June the four national networks did a combined business which was 10% better than the same month in 1939; in July the improvement was 22%; in August it was 17%—all this on top of what was a record summer's business in 1939. Also, there's a report on two new policies that NBC has adopted to hypo its Blue network—the acceptance of advertising of proprietary products, and of five-minute sponsored news broadcasts—page 32.

Muzak

THE MUZAK CORPORATION, which first started piping music over telephone wires to cafes and restaurants in New York City in 1936, is now operating in nine other Eastern and Midwestern cities. A new type of Muzak service is music for apartment houses—page 44.

Job Stabilization

MARSHALL FIELD & Co., Chicago, is trying to find a way to stabilize jobs for its regular employees despite the seasonal nature of retail merchandising. Backbone of the Field system is a complete classification of all extra employees as to experience, aptitude, amount of part-time work desired, and so on. The plan is producing results in higher store profits, and employee benefits—page 48.

Apprenticeship

IN WASHINGTON a Federal Committee on Apprenticeship has been set up to advise industry on the apprentice training necessary for national-defense production requirements. A program which this committee considers exemplary is now being conducted at the Fairbanks, Morse & Co. plant in Beloit, Wis. What the program is—page 56.

U. S.-Japanese Relations

WASHINGTON THREATENS to stop all exports of iron and steel scrap—thus forcing the showdown in U. S.-Japanese relations, which has been shaping up since the invasion of Manchuria in 1931. But is Washington ready for a showdown now?—page 66.

Forged and Precision Built ...to LAST LONGER



FORGED and scientifically treated to control unseen elements that affect endurance, precision built to control accurately the visible and measurable...
New Departure ball bearings assure performance ability of the highest order.

NEW DEPARTURE THE FORGED STEEL BEARING

Nothing Rolls Like a Ball



Write to Main Office, New Departure, Division of General Motors, Bristol, Connecticut for engineering consultation and 150 page book, "Why Anti-Friction Bearings."



Authorized automotive and industrial replacement bearing service, wherever you see the United Motors Service sign. Authentic records. Complete stocks. Prompt delivery.



Our Laboratory
**SOLVES
SOLDERING PROBLEMS
FOR YOUR BUSINESS...**

IN this age of alloys, soldering is a science... a science contributed to by the Kester Solder Company and made available to solder users in all industrial fields.

When the man in charge of your production puts a soldering problem up to Kester, here are the material resources available to solve it:

- 100 different solder alloys**
- 10 different solder fluxes**
- 80 different solder strand sizes**
- 4 different solder core sizes**

You can see at a glance that the number of possible combinations is almost endless. Kester engineers will aid in the selection of the right alloy, the right flux, the right strand size, core size and correct application to do your work with the greatest possible speed and economy.

You may be sure that soldering problems in your business will come within the scope of Kester's experience or ability to solve. Kester plants are the largest and best equipped in the entire industry, and 43 years of specialization in solder manufacture have produced the one quality line that meets every soldering requirement.

Pass this information along to the man who can make the best use of it in your business. Kester is at his and your service.

KESTER SOLDER COMPANY
4230 Wrightwood Avenue, Chicago, Illinois
Eastern Plant: Newark, New Jersey
Canadian Plant: Brantford, Ontario

**KESTER
CORED SOLDERS**
STANDARD FOR INDUSTRY

Speaking of Signs

IN CHICAGO'S Merchandise Mart, the mecca of out-of-town buyers, the old expression takes on a new meaning when you see on the sign hanging above the popular bar: "Caveat Emptor."

Christ Cella, a New York restaurant proprietor, spent so much time repairing his premises recently that he finally just hung out a sign saying, "Alterations As Usual During Business." (Trade picked up something fine. Everybody came in to tell him his sign was wrong, and then stayed for dinner.)

The proprietor of a neighborhood delicatessen store took advantage of the fact that the movie theater down the street was showing "All This and Heaven Too" the other day, and put a sign in his window, "All This and Herring Too."

New York publicity department of the United Artists motion picture company rounded up the press a couple of weeks ago, hired a couple of models, bought a bottle of champagne, and a lot of homing pigeons, and proceeded to hold unveiling ceremonies, on the corner of 48th St. and 6th Ave., for the first poster to be put up in the Times Square area advertising the new United Artists picture, "Thief of Bagdad." What's next in those busy brains, fellows?—a protest meeting when the first moustache is scrawled on the first poster in the Times Square area advertising the "Thief of Bagdad"?

Celebration

LAST WEEK Mr. M. V. Miller, vice-president of the Royal Typewriter Co. celebrated his tenth anniversary as director of Royal's sales. To do full justice to the occasion the company threw a party for Mr. Miller at the Waldorf-Astoria hotel in New York and presented him with a typewriter. Nothing run-of-the-mill either. Not only did it have the facsimile signatures of more than a thousand Royal salesmen engraved on it, but it was plated with 24-karat gold by Cartier, the jeweler. Though the job was done at cost (Cartier taking no profit) the machine cost between \$1,200 and \$1,400.

At Mr. Miller's party, the women's world's champion typist, Miss Stella Willins (128 words a minute) tried her hand at the machine, and the men's champ, who likes to be known as just plain Tangora (140 words a minute) clipped off a few phrases. Despite the fact that the machine even has gold type founts, both the champs said it worked as easily as an old black metal job. Nevertheless, Mr. Miller isn't going to put the machine in his office and let his secretary bat away at it. It's on exhibit at the House of Jewels at the New York

NEW BUSINESS

World's Fair now. Next month it starts out on a 20,000-mile tour. Mr. Miller won't get it back until next spring. And we'll bet he has his troubles figuring out what to do with it, too.

Progress

MAYBE it looks like one of the new fall hats to you, but General Electric says it is a sure cure for claustrophobia in beauty parlors, and all the girls say it's wonderful. What it is, actually, is an improvement on the hair-dryer that the girls sit under for hours at a time in beauty parlors. The improvement is the transparent plastic used on the lower part of the hood. This makes it possible for madam to see what's going on. She doesn't have to sit there under the dryer



any more, with her head all covered over, and nothing for her to do but stare down at the magazine in her lap, reading over and over until she's in a coma, about Laurence and Vivien, or Clark and Carole, or The REAL Roz Russell. See how her horizon widens under the General Electric dryer. Catch the light in the lady's eye (in the accompanying photograph). A whole new world has opened up to her. She isn't missing any of it either. She can give the lady who is getting the manicure in the corner the once-over. She can check up on how that old girl across the way is coming out of her henna rinse. In fact, she looks as though the General Electric dryer with the transparent plastic in the hood is the greatest thing that's happened to women since suffrage, only more so.

Cheaters?

WITH ALMOST shocking simplicity the publication *Retailing* last week announced that "a girdle designed to uplift the buttocks of figures that are too flat is being marketed."

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WASHINGTON BULLETIN

WASHINGTON (Business Week Bureau)—Republicans may gleefully celebrate the big gains which they scored in Maine, as compared with four years ago, but Democrats don't seem to be terribly worried. Reason: They claim that Willkie's qualified opposition to "drafting industry" puts him out on a limb, and they are busily sawing it off. The Overton-Russell amendment to the conscription bill which would put under government ownership those private plants that refused defense orders fitted beautifully into the Administration's strategy for driving the draft bill through Congress, but its ace-high political value wasn't realized until Willkie tried to trump it.

Big Obstacle Is Treasury

IF THIS WAS A PLAY to the electorate, New Dealers concede that Willkie's charge that the amendment would "sovietize" industry went over big in the Union League Clubs, but they are supremely confident that it just didn't register much on the other side of the railroad tracks.

Chuckles are pretty loud around the White House, particularly as Roosevelt figured that the really big obstacle to the defense program lay not in the Overton-Russell amendment but in reconciling the Treasury's tax views with the Defense Commission's anxiety to get going. Roosevelt must accept responsibility for the failure to cut through that snarl, in spite of the lip service which he has been giving to the Defense Commission and its point of view.

Compromise at No Cost

THE ADMINISTRATION can readily accept a compromise on the seizing of plants without losing a fraction of the political dividends which the Overton-Russell strategy earned.

Instead of condemnation of plant, as proposed in the drastic Senate amendment, the House adopted a provision for the taking over of plants on a rental basis in those exceptional cases where owners may refuse to accept government orders.

A compromise along this line, practically identical with the law during the last war, was the inevitable upshot.

Untangling the Plant Problem

GOOD NEWS for business this week is the first down won by the Defense Commission over the Treasury on amortization of defense plants. In response to insistence by the Defense Commission and the Army and Navy, the Senate Finance Committee struck from the tax bill a Treasury-sponsored condition that owners of emergency plants built at their own expense but fully amortized over a

five-year period couldn't thereafter dispose of the property without the written consent of the Secretary of War or Navy.

A proviso still attaches to plants built by private capital under contracts calling for reimbursement by the government in a five-year period, but in such cases, the recommendation adopted by the Senate committee provides that the contracts be made public and that the Defense Commission and the Secretary of War or Navy certify that the terms of the contract adequately protect the government's interest.

Defense Commission officials insist that the absence of legislative restrictions will cure the big headache over plant expansion. Opposition to the committee's action was, of course, expected on the Senate floor. Senators Lee, Walsh, and Bone, and others who refuse to recognize industry's stake in national defense like the idea of maintaining emergency plants as "stand-by" equipment indefinitely.

Protection for Subcontractors

ENDORSEMENT by Comptroller General Warren will support the Defense Commission's intention to extend to subcontractors on armament orders the benefit of the contractual arrangement by which contractors putting up capital for new capacity will be reimbursed by the government over a five-year period (BW—Aug 31'40, p16).

★Speedup: Assured that no legal obstacles will be raised to this method of financing construction by subcontractors, the Defense Commission anticipates that the defense program will be speeded up by facilitating the participation of many more companies.

201 Ships for the Navy

A "DOWN PAYMENT" of 4.7% starts the United States toward a two-ocean Navy of greater strength than the combined naval forces of the dictator powers. Within three hours after Roosevelt signed the \$5,246,000,000 defense bill, the Navy nailed down contracts for the entire authorized complement of 201 ships, to increase its strength by 70%. But \$183,000,000 in cash was provided by the bill to start the ship work—all the Navy expects to be able to spend this fiscal year.

Contracts provide that subsequent installments on estimated total cost of \$3,861,000,000 are dependent upon congressional appropriations during the five years needed to get all the ships into service. The Navy's "take" includes about a half a billion for planes; contracts totaling \$108,000,000 for 2,400 planes are awaiting congressional action upon the three-headed bill covering plant

writeoff, excess-profits tax, and Vinson-Trammell profit-limits suspension.

★From now on: Actual impact upon business of this deluge of money is cushioned by the fact that the scope of the program has been anticipated for weeks and that execution will be spread over several years. But note that, barring a world disarmament fever, Commodore Roosevelt's maneuver of getting the whole fleet increase under contract transfers practical control of the pursestrings from Congress to the White House.

Tin Smelter for Jersey?

SEN. BARBOUR of New Jersey jumped the gun in announcing that the long-projected tin smelter for the U. S. would be located in New Jersey—but Barbour is probably right. Defense Commission officials have been keeping mum on negotiations with Simon Patino, Bolivian tin king, and National Lead Co., among others. Any tin smelter established here must be on the coast. Defense officials would prefer to locate the plant at a Gulf port, less vulnerable from Europe, but shipping facilities are scarce on that route. That leaves the Atlantic and Pacific, and the latter is too far away from the finished product market.

★Financing: Sen. Barbour was right in saying the government will finance the plant, but whether it'll be by loan or actually laying out the cash for a federal plant privately operated on a fee basis still is a toss-up.

Anti-Sabotage Service

FEDERAL BUREAU OF INVESTIGATION advice on how to guard defense plants against sabotage is now available to industry for the asking.

The new policy will not be formally announced because the service which can be given is limited. But responsible officials of any plant vital to national defense may request the FBI to make a survey—to include expert analysis of "weak spots" in factory setup and existing protective measures, and recommendations of precisely what should be done.

★Secret: Specially-trained sabotage agents are available for these studies. Their recommendations are not binding upon the company requesting them, and will be kept strictly confidential.

Army Roads vs. Votes

ALTHOUGH there is no present intention of asking Congress for special money for defense road construction, the final decision will depend on how much haste is desired. To bring the national road system up to military specifications, it will be necessary to strengthen or replace 1,800 bridges to make them fit for 15-ton

HEATING OF "BEST MANAGED" BUILDING HAS BEEN IMPROVED

Progressive Ownership Installs Webster Moderator System in 15-Story Genesee Building

INCREASES TENANT COMFORT

Reduction in Steam Costs is a Secondary Consideration but Owners Save \$668 in Year

DESIRED HEAT IN EVERY ROOM

Buffalo, N. Y.—One of the best managed buildings in Buffalo, the 15-story Genesee Building, today enjoys the finest modern steam heating service because a progressive ownership is constantly on the look-out for ways to increase tenant comfort.

A Webster Moderator System was installed in the Genesee Building in 1934 when the owners saw an opportunity to balance steam distribution and improve the effectiveness of the control.

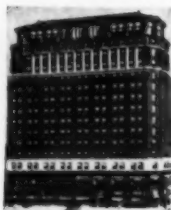
The results have been completely satisfactory. With the Webster Moderator System, there is nothing for tenants to do except to enjoy comfortable warmth. Room temperatures are kept at the desired level. In every office and on every floor, the Webster Moderator System supplies the proper amount of heat.

Savings were a secondary consideration in the selection of the Webster Moderator System because of past efficiency in the heating of the building.

Nevertheless, steam consumption has been materially reduced as a result of the improvement in steam distribution. During the 1938-39 heating season, for example, savings were valued at \$668.52.

N. P. Clement is President of Genesee Properties, Inc., owners of the Genesee Building. J. O. Armstrong is Building Manager.

The Webster Moderator System was installed by J. W. Danforth Co., Buffalo heating contractors. There is a total of 26,404 square feet of installed direct radiation.



Genesee Building
Buffalo, N. Y.

LOW HEATING COST

GET THIS BOOK . . . Read the fact stories about economy and comfort in the heating of 144 buildings. No exaggerated claims. No promises. Just 64 pages of heating results. Ask for "Performance Facts."

WARREN WEBSTER & CO., Camden, N. J.
Pioneers of the Vacuum System of Steam Heating
Representatives in 65 principal U. S. Cities—Est. 1888

trucks, build or improve 3,112 miles of roads giving access to 120-odd cantonments and reservations (at a cost of \$200,000,000), widen 5,500 miles of rural road to at least 18 ft., and resurface 14,000 miles of road.

Cost of the whole job won't be known till completion next month of a survey now under way, but will far exceed the \$800,000,000 or so of federal and state road money available over the next two years plus what the Army and WPA will contribute.

★Prod: Concentration, under newly granted authority, of nearly all road money upon the strategic highway system will bring enough howls from the farm vote to build up real pressure for a special appropriation.

Flood Threat to Defense

PORK-BARREL POLITICS continue to block flood protection for vital United Aircraft Corp. plants at East Hartford (BW—June 30, p. 7). Those factories were closed by 1936 and 1938 floods. In order to prevent repetition, Army engineers recommend a dike extension costing \$249,000.

Three times the Senate has passed the necessary legislation. Three times the House has demurred that East Hartford doesn't rate special treatment in the absence of general flood-control legislation. The House has just rejected the latest Senate authorization with full realization that the Navy is closing agreements to purchase 17,000 engines and 27,000 propellers from the flood-threatened plants.

Lumber Prices Hit

YOU CAN REST ASSURED that because Leon Henderson, the Defense Commission's industrial-prices guardian, has been keeping quiet, he hasn't had much to grumble about. This week, however, Commissioner Henderson jumped the lumber industry.

The defense program, he said, doesn't justify any increase in prices and recent advances have been due to unfounded rumors of actual defense needs in the next 12 months. These, he said, are well within the industry's normal capacity, without jeopardizing expected civilian requirements.

Insofar as Henderson's statement is intended to discourage price pyramiding, the National Lumber Manufacturers' Association sees eye to eye with him, but the association reports that price increases have not been widespread, that in some lines increases were coincident with greater activity in Wage-Hour Law enforcement. For his part, Henderson promises that the Defense Commission will try to avoid pyramiding of inquiries, which give rise to rumors of excessive orders by the Army and Navy. Present plans require about a billion feet of lumber, more than half of which is under contract.

Ford Launches Aircraft Engine Program

DESPITE THE POTHER OF DEBATE about the tax-amortization bill, conscription, and the Vinson-Trammell profit restrictions, few items of defense news made as big a splash in Washington this week as the report that the Ford Motor Co., after a couple of false starts, had at last definitely embarked on a program of aircraft-engine production. The step was taken this week when ground was broken at the River Rouge plant for the construction of a two-story, 6,000,000-sq.-ft. plant for the manufacture of Pratt & Whitney air-cooled engines (BW—Aug. 31 '40, p. 28). The plant, to be completed in 100 days, should actually be turning out engines in eight months—turning them out at the rate of 15 a day on a double shift, or just about one an hour.

Meanwhile, Ford is going rapidly ahead in tooling up for production of its own 12-cylinder liquid-cooled plane engine. The engine hasn't yet been approved by the Army Air Corps, but Ford is apparently so sure of its performance that it contemplates a much larger production of these engines than of the Pratt & Whitney models. Present plans call for full production at the River Rouge plant within 12 to 18 months.

Arnold Snubs FTC

ADEQUATE PROOF that the Justice Department regards the Federal Trade Commission's antitrust work with cool contempt can be found in Assistant Attorney General Arnold's new book, "The Bottle-necks of Business." Discussion of FTC's activity is marked by its almost total absence.

After dwelling on the Sherman Act in detail, Arnold said it was supplemented by the Clayton Act in 1914, giving Justice and FTC concurrent jurisdiction. He added, however, that it would be a "digression" to discuss the Clayton Act because "all the important prosecutions by the Department of Justice are under the original Sherman Act." Arnold kisses off the Clayton Act with the explanation that administrative power was conferred on Federal Trade on the theory that such power would be more adequate than judicial procedure in dealing with some business problems.

★Footnote: Disparagingly, Arnold remarks that policing of false advertising and unfair methods of competition, for which he apparently has no high respect, are "typical" of the commission's jurisdiction under its own organic act.

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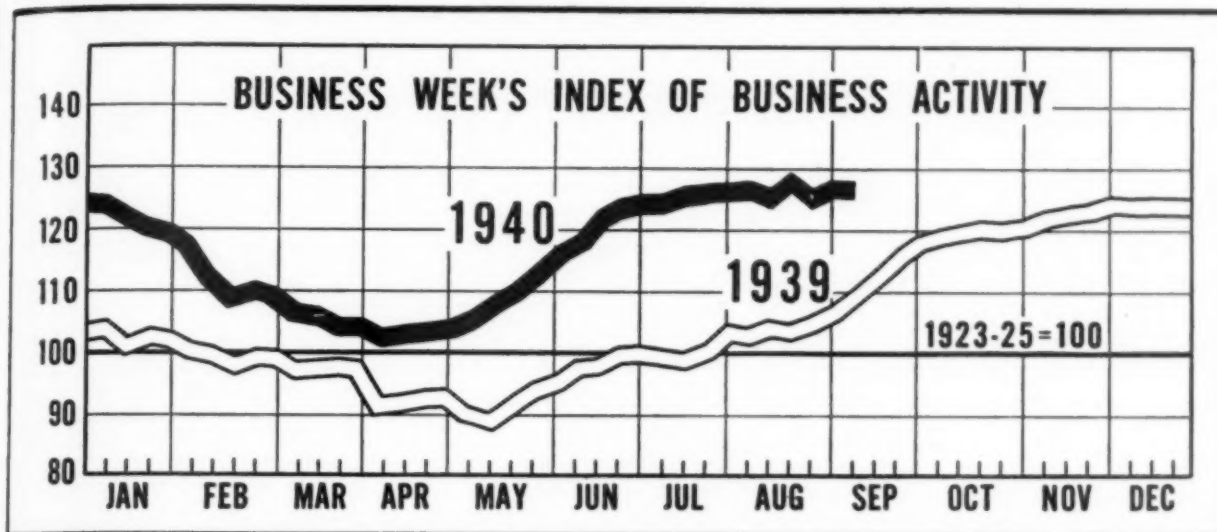
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THE FIGURES OF THE WEEK



THE INDEX.....

Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
*127.6	†127.8	126.7	107.9	110.8

PRODUCTION

Steel Ingot Operations (% of capacity).....	91.9	82.5	89.5	64.7	70.2
Automobile Production.....	30,665	27,645	11,635	103,560	26,865
Engineering Construction Awards (<i>Eng. News-Rec.</i> 4-week daily av. in thousands)	\$14,398	\$13,381	\$10,989	\$8,465	\$10,041
Electric Power Output (million kilowatt-hours).....	2,463	2,601	2,569	2,464	2,290
Crude Oil (daily average, 1,000 bbls.).....	3,624	3,501	3,475	3,829	3,229
Bituminous Coal (daily average, 1,000 tons).....	1,517	†1,489	1,389	1,467	1,369

TRADE

Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars).....	76	75	72	68	74
All Other Carloadings (daily average, 1,000 cars).....	52	52	48	38	46
Check Payments (outside N. Y. City, millions).....	\$3,731	\$3,672	\$4,410	\$4,675	\$3,833
Money in Circulation (Wednesday series, millions).....	\$8,092	\$8,006	\$7,929	\$7,481	\$7,261
Department Store Sales (change from same week of preceding year).....	+10%	+12%	+5%	+6%	+3%

PRICES (Average for the week)

Spot Commodity Index (Moody's, Dec. 31, 1931 = 100).....	156.0	154.2	150.2	150.0	167.9
Iron and Steel Composite (Steel, ton).....	\$37.81	\$37.78	\$37.66	\$36.83	\$36.01
Scrap Steel Composite (<i>Iron Age</i> , ton).....	\$19.92	\$19.29	\$18.63	\$16.71	\$16.75
Copper (electrolytic, Connecticut Valley, lb.).....	11.385¢	11.000¢	10.750¢	11.500¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.).....	\$0.74	\$0.70	\$0.70	\$1.00	\$0.87
Sugar (raw, delivered New York, lb.).....	2.70¢	2.67¢	2.65¢	2.81¢	3.78¢
Cotton (middling $\frac{1}{8}$ ", ten designated markets, lb.).....	9.32¢	9.43¢	9.88¢	10.52¢	9.17¢
Wool Tops (New York, lb.).....	\$1.047	\$1.036	\$0.988	\$1.060	\$1.075
Rubber (ribbed smoked sheets, New York, lb.).....	19.34¢	19.39¢	19.62¢	18.78¢	22.46¢

FINANCE

Medium-Grade Corporate Bond Yield (30 Baa issues, Moody's).....	4.69%	4.73%	4.76%	4.81%	5.00%
U. S. Bond Yield (average of all issues due or callable after twelve years).....	2.20%	2.23%	2.25%	2.28%	2.55%
U. S. Treasury 3-to-5 year Note Yield.....	0.50%	0.54%	0.59%	0.42%	1.18%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average).....	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate).....	$\frac{1}{8}$ - $\frac{1}{2}$ %	$\frac{1}{8}$ - $\frac{1}{2}$ %	$\frac{1}{8}$ - $\frac{1}{2}$ %	$\frac{1}{8}$ - $\frac{1}{2}$ %	$\frac{1}{8}$ - $\frac{1}{2}$ %
Business Failures (<i>Dun & Bradstreet</i> , number).....	177	229	252	280	209

BANKING (Millions of dollars)

Demand Deposits Adjusted, reporting member banks.....	20,901	21,053	20,712	19,341	18,040
Total Loans and Investments, reporting member banks.....	24,188	24,157	24,101	23,355	22,389
Commercial and Agricultural Loans, reporting member banks.....	4,460	4,463	4,446	4,355	4,075
Securities Loans, reporting member banks.....	853	830	856	1,115	1,152
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks..	11,957	11,969	12,005	11,300	10,731
Other Securities Held, reporting member banks.....	3,665	3,679	3,604	3,464	3,353
Excess Reserves, all member banks (Wednesday series).....	6,490	6,490	6,330	5,733	4,969
Total Federal Reserve Credit Outstanding (Wednesday series).....	2,490	2,480	2,471	2,515	2,643

STOCK MARKET (Average for the week)

50 Industrials, Price Index (Standard Statistics).....	102.4	101.1	97.4	118.9	126.6
20 Railroads, Price Index (Standard Statistics).....	29.2	28.4	26.6	31.2	31.8
20 Utilities, Price Index (Standard Statistics).....	62.1	61.6	61.3	67.9	65.8
90 Stocks, Price Index (Standard Statistics).....	64.8	63.7	60.8	97.2	102.1
Volume of Trading, N. Y. Stock Exchange (daily average, 1,000 shares).....	652	†560	345	703	3,667

* Preliminary, week ended September 7th. † Revised. ‡ Date for "Latest Week" on each series on request.

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 . . . Chicago . . . Omaha . . . and points west . . .
BUT I'll be home tonight to put you to bed!"

That's telephone traveling!

Long Distance multiplies a man's ability to be many places in the same day.

He can reach any town, anywhere, in a minute and a half (average).

He can go direct to the right man, without a long lobby-wait.

He can get facts and give them, in friendly fashion.

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Long Distance saves days and dollars for many types of business. It is fast, adaptable, definite. Try it and see!



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September 14, 1940

THE BUSINESS OUTLOOK

Speed-up in construction—notably in private building—shows effect of defense program on business planning. Department store gains carry sales index to best level since 1930 as employment and payrolls rise.

PERHAPS THE BEST WAY to summarize the current trend in business is to cite this week's announcement of the Westinghouse Electric & Manufacturing Co. On top of a good level of run-of-the-mill "peacetime" business in August, the company received \$36,000,000 of government orders. This lifted total incoming business to \$57,352,000, or some \$7,000,000 higher than the previous record month—October, 1917. As a result, Westinghouse will spend more than \$8,500,000 within the next 12 months to increase its production facilities.

By no means is the Westinghouse Electric experience identical with industry as a whole; but it is indicative. Business statistics are likely to show a great many new highs from month to month, for the defense program is rapidly accelerating. The effect is clearly evident in the sharp advance in construction contracts awarded. Not only did total construction last month make a new high since June, 1930, but private building—which had been lagging—advanced sharply. In fact, private operations took up where government contracts left off; for public awards were down slightly from July.

Home Building Rises

The total of contract awards, \$414,941,000—as compared with \$312,228,000 a year ago—is rather impressive. And the gain is not confined to defense structures. Residential building was up \$25,000,000 over a year ago, and \$12,000,000 over July, to \$152,988,000—the best level since July, 1929. Clearly, the war hasn't caused people to defer home building. Worry about taking on long-term commitments in the face of possible conscription is not reflected in such figures.

Of course, there is another side to the residential-building coin. Defense operations have jammed up in certain industrial cities or areas, creating housing bottlenecks. In such places, naturally, it is sound to build both from a speculative viewpoint and for personal reasons. The demand for housing being acute, the possibility of forced resale—at a profit, not a loss—is promising. Thus, defense has been a boon to real estate in many of the war-industry centers of the country, such as the tri-city area of Davenport-Rock Island-Moline; suburban Los An-

geles; Hartford, Conn.; Kearny and Newark, N. J.; Bath, Me.; Newport, R. I.; Corpus Christi, Tex., and many others (BW—Aug. 31 '40, p. 31).

Department Store Sales Jump

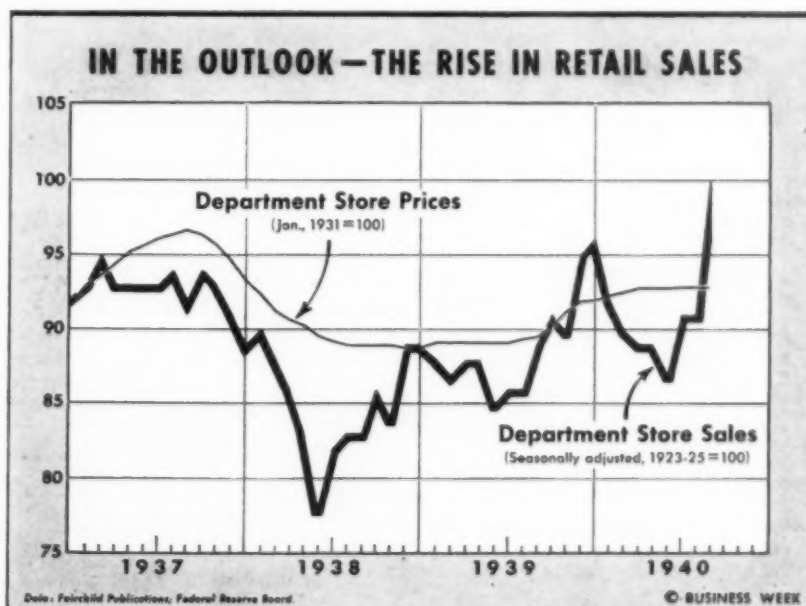
Retail sales, too, are reflecting the impact of expanding employment and payrolls in the heavy-goods industries. Earlier in the year, the major rise was in the durable consumer goods, such as automobiles, refrigerators, washing machines. But last month the 9-point jump in the Federal Reserve Board's index of department store sales (see Outlook Chart) signified that consumer buying power was spilling over into the so-called soft goods. At 100, the index is at its best level since April, 1930, and five points above the 1937 high. But it

is not to be assumed that the index will remain around "par." Some setback this month is conceivable.

It is questionable whether the current level of national income—around \$73,000,000,000—is sufficiently high to support department store sales at 100 in the Reserve index. In the early part of 1937, when national income was at about the same level, the index fluctuated between 93 and 95. Furthermore, August was "blessed" by two coincidences which helped to boost the index disproportionately. In the first place, sales of general merchandise had been lagging behind durable goods, so some unsatisfied demand had probably been built up; second, the weather turned cold in August, and an earlier-than-seasonal rush to buy fall wear occurred.

August vs. September

A statistical quirk enters the picture, too. August is normally a low month in department store sales. Customarily volume would amount to 73% of September sales. Hence, an increase in dollar vol-



August's 9-point jump in the Federal Reserve Board's department store sales index is the sharpest on record since October, 1925. And it validates BUSINESS WEEK's frequent assertions that it was merely a matter of time before general merchandise sales responded to expanding employment and payrolls (BW—Jun. 15 '40, p. 13 et

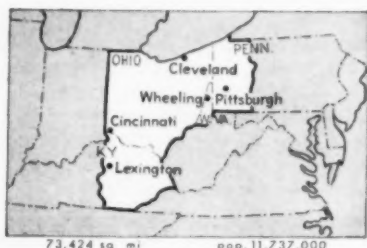
seq.) It is significant that the advance has taken place without a sharp rise in the retail price level. In other words, a larger quantity of goods is moving over the retail counter from merchandiser to consumer; and this means, of course, that stores will have to buy larger quantities in order to keep up their stocks.

ume in August would have a much greater impact on the seasonally adjusted index than the same increase in September, or, for that matter, in any other autumn month. That and the further fact that recent weekly gains over a year ago have not been as sharp as they were in August, suggest that some recession in the index is in the offing. But

that will not mean that sales have turned down. It will simply mark a normal correction of an abnormally sharp advance. In the background of domestic business is the war. Last week stock and commodity markets rose on the theory that the Germans had unleashed their worst; this week there was a relapse, as German attacks on London intensified.

But, unless the conflict comes to a sudden end, a continued high level of industrial activity is in prospect. Steel operations rose again this week, and total 1940 output probably will be at an all-time high. Automobile dealers are entering the 1941-model selling season in what might be termed perfect shape. Stocks of 1940 cars are down near zero.

The Regional Business Outlook



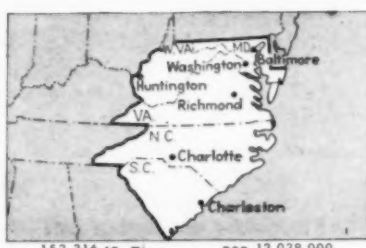
CLEVELAND—Slow and steady business expansion is now the prospect—strange as it may seem—in this unusually volatile industrial area. With the steel rate above 90% of capacity, operations in this biggest of district industries can rise but little from now on. Many of the machinery lines, too, whose products are basic to national defense production—like machine tools, electrical equipment, aviation parts and supplies—are also approaching capacity.

But glass makers, parts suppliers, and tire producers are rapidly boosting production and deliveries—now that the automobile changeover has been completed. However, in a short time, new car assemblies will stabilize, and so will shipments from these satellite lines.

Pottery Industry Expands

Direct—as well as indirect—beneficiaries of rearmament are the pottery makers. This industry, centered at East Liverpool, Ohio, and reaching into northeastern Ohio, West Virginia, and western Pennsylvania, is preparing for huge government orders for chinaware. To meet the demand of normal civilian business—enlarged as it is by the national industrial upturn—potters plan to install new tunnel kilns.

The improvement in buying power and retail prospects here is among the sharpest in the nation. More noticeable even than the gains in the large centers are the increases in small- and middle-sized Ohio cities which are dominated by the heavy industries. These include Canton, Massillon, Wooster, Mansfield, Galion, Shelby, Ashland, Marion, Lima, and Mt. Gilead.



RICHMOND—Last week's outburst of cotton textile orders shapes up as the best news of the year for the Carolina Piedmont section of this Reserve district. More than five weeks' production has already been sold in New York's Worth Street market, and the buying movement is apt to continue off and on this month. Result: Payrolls and retail trade are likely to pick up in the Carolina mill towns.

Employment Still Rising

In the northern section of this district, national defense is spreading out. Additions to the Glenn L. Martin airplane plant at Baltimore are boosting employment among coconstruction workers; ultimately 24,000 more workers will be employed by the company in plane production. Naval contracts are to be awarded to the shipyards in the Hampton Roads section of Virginia, and on New River, near Radford, the Hercules Powder Co. is building a \$25,000,000 smokeless-powder plant for the government. New Army and Navy bases are added local business stimuli.

The industrial trek southward continues to lift activity here. In four months since April, 24 new industrial plants and 33 additions have been built or are building in North Carolina—largely cotton, hosiery, silk, rayon, and food manufacturing. And du Pont has taken an option on land near Martinsville, Va., for a synthetic-yarn plant.

Prices at the early tobacco auctions are about as expected—10% to 20% above last year. But the crop is 47% lower; thus income losses will be considerable. But cotton may well return more than in 1939; the crop has improved noticeably in recent weeks.



TWIN CITIES—Now that most crops have been harvested, livestock marketings—at their peak this month and next—have replaced the weather as the No. 1 income determinant in this northwestern farming territory.

Not only does this year's gain of 5% in cattle on the farms augur increased receipts, but prices are up considerably above 1939 levels—largely because of expansion in beef and pork demand in the eastern industrial centers. Butter and egg supplies also are higher than a year ago, and so are quotations.

The 1940 spring-wheat crop has not lived up to early hopes (*BW—Aug 17 '40, p. 14*), and is only moderately above 1939. However, Minnesota's flax crop shows a 35% gain, and in July, when wool receipts attained a post-1929 high, farm income ran well ahead of a year ago. Other farm products will approach 1939 volume, but at better prices.

Retail Trade Trends

Urban retail trade is catching up with rural sales in comparisons with a year ago—as predicted (*BW—Jul 20 '40, p. 14*)—but country stores in Minnesota and northern Wisconsin and Michigan are holding their lead better than others in the district. So far, because of gains in farm income, retail sales in this area have kept pace with the national average.

National defense is important here only indirectly: through its effect on farm prices (via increased employment and payrolls in the nation's industrial areas) and through the stimulus to iron and copper mining. Otherwise operations have more or less been "as usual;" there has been no spurt as in, say, the Cleveland district.

Defense on the Antitrust Line

Feud between Arnold and Henderson creates discord on policy. Meanwhile, the Assistant Attorney General finds an issue in transatlantic patent agreements.

WASHINGTON (Business Week Bureau)—Thurman Arnold, the rambunctious Assistant Attorney General who has been plugging the antitrust laws for all they are worth, isn't faring so well. His policy has run afoul of the urge to speed the defense program. Another big suit that he was all set to spring against major oil companies a month ago has not materialized. Evidently the Defense Commission intends to sit on it indefinitely unless Arnold can smoke out Mr. Stettinius, Mr. Henderson, and their colleagues.

Both Arnold and the Defense Commission talk about "bottlenecks" in the defense program but the commission is thinking and talking in terms of physical bottlenecks and Arnold in terms of conspiracies to rig prices and policies which may restrict output or retard its free movement. The Defense Commission would like to keep the industries essential to its procurement program happy and cooperative. It is asking the oil industry, for example, to make large capital expenditures for construction of pipe lines and storage facilities. Arnold holds that the goodwill of an industry bought by winking at the antitrust laws isn't worth buying.

Safeguards Will Be Maintained

Fundamentally, Arnold and the Defense Commission don't appear to be so far apart that the impasse can't be broken. Operation of the antitrust laws was practically suspended in the last war. You can take the Defense Commission's word for it that enforcement will only be modified this time on positive showing of necessity in individual cases and under proper safeguards. This is a little wordy but would seem to leave the antitrust laws in the picture even if, considering the source of this pronouncement, it leaves Arnold out.

Probably the biggest obstacle to an harmonious policy which business could understand, even if it didn't relish it, is a personal feud between Arnold and Leon Henderson, the industrial-prices watchdog on the Defense Commission. They don't like each other's bark and they are both rough-and-tumble scrappers. So far as Henderson is concerned Arnold could quit and good riddance. There's nothing to show that the feeling isn't mutual.

At a time when the necessities of the defense program are crowding Arnold—forcing him (justifiably or not) to defend his position, better manners probably would help him to hold his ground.

He regards publicity as a most potent weapon to support antitrust laws which in past years have been pretty badly battered in the courts but his intemperate language is putting him in bad odor. Arnold's own words present him in the light of baiting business and, so, raise the question of how he can expect others to accept him as sincerely trying to further the defense procurement program. It's possible consequently that Arnold him-



Thurman Arnold, the energetic trust-buster (above), is squared off with Leon Henderson, industrial-prices watchdog of the National Defense Advisory Commission (and a good scrapper himself), over anti-trust policy and national defense.



self is destroying whatever usefulness his policy may serve in that connection, even if his policy as such may be regarded as sound.

Whatever the broad results of the hiatus between the Justice Department's antitrust division and the Defense Commission may prove to be, the resourceful Mr. Arnold is pushing a line of so-called "national-defense cases" that won't be lightly dismissed by him and shouldn't be by industry. In general, these cases charge interlocking patent controls between foreign and domestic concerns designed to divide the world market and facilitate price-fixing. Arnold claims that such patent agreements get in the way of the defense program. There's a wallop in that claim to which public opinion may respond without too much examination of the technicalities. And this week Sen. Wheeler gave the public new headlines by proposing a Senate investigation of alleged partial control of defense industries by German and other foreign concerns.

Price Maintenance Charged

Latest in Mr. Arnold's defense line are two indictments recently returned by a federal grand jury in New York against General Electric Co. and Corning Glass Works on lamp bulbs and the General Electric and the Carbonyl Co. of Detroit, a G.E. subsidiary, on hard metals. The lamp indictment alleges that, by agreement in 1936, Corning and General Electric paid for rights to use all American patents owned by the Netherlands firm, N. V. Philips Gloeilampenfabrieken. Under the same agreement, it is charged, the Philips firm stopped exporting to the United States.

The second indictment charges a conspiracy by General Electric, Carbonyl, and the Krupp Works of Essen, Germany covering Krupp patents on cemented carbides, particularly in demand now for special high-speed tools needed in munitions manufacture. Again there is the claim that G.E. and Krupp agreed to refrain from exporting into each other's markets and the indictment is impressively dressed up with assertions that the arrangements made were conducive to restriction of licensing in this country and to profitable price maintenance.

"Protection" for American Firms

The anti-trust lawyers take the position that American companies involved in such agreements have done national defense a disservice by putting certain needed defense materials under production and price wraps. To the reply that it is only by reason of such agreements that the American companies were able to obtain manufacture here of these needed materials in the first place, the government lawyers are politely incredulous. In any event, they add, successful government intervention now will protect the American companies from post-war

suits by the foreign parties to agreements of the kind attacked.

Before getting into any public emotional heat over these suits, industry will do well to note their exact technical nature, since it is the technical charges that will have to be met in court, not the "patriotic" issues that seem to have been raised for public attention.

Ex Post Facto Suggestions

In bringing these actions, the Department of Justice employed not only the Sherman Act but the antitrust provisions of the Wilson Tariff Act of 1894. Invoked on few occasions in the past, this act outlawed any combination, conspiracy, agreement, or contract between two or more persons or corporations, either of whom, as agent or principal, is engaged in importing any article from a foreign country, when such combination is intended to restrain trade or to increase the market price in the United States of the article imported.

The questions involved in each case are whether agreements have been made as charged, what their effect has been, and whether they break the law. Suggestions that such agreements—all drawn up long before the present excitement—reveal a lack of patriotism in the national defense emergency are all ex post facto and should not be allowed to confuse either the public or the court.

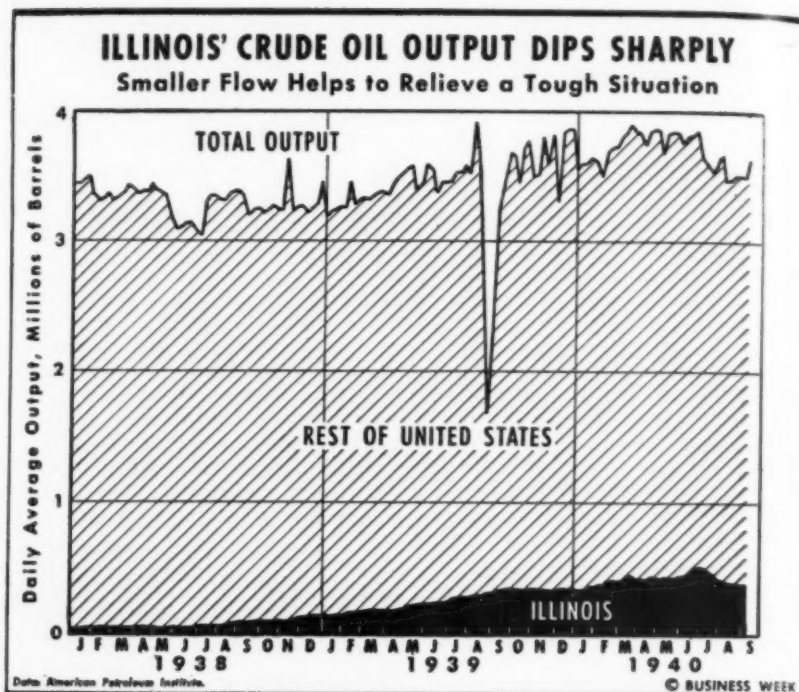
No Ford Six—Yet

But the rumor persists that smaller engine will be offered as optional equipment Jan. 1.

THIS WEEK, the Ford Motor Co. answered two important questions which have weighed on the public mind over a period of months. Would Ford undertake the manufacture of airplane engines and would Ford introduce the six-cylinder automobile? The answer to the first question was yes (page 8) and the answer to the second question was no—or at least not now.

The failure of the six to make its bow at the press preview for the 1941 Fords this week revived the rumor that Ford would offer the six as optional equipment on Jan. 1, but company officials at the showing could neither confirm nor deny the rumor, saying simply that they had not yet been given instructions by either the founder or the president of the company. Sixes have been under development for years. Manufacturing programs have been started and scrapped several times. But until the go-ahead signal is given by either Henry or Edsel Ford, the six is still "out."

The Ford, Mercury, and Lincoln lines for 1941 are substantially broader and include the new Lincoln custom group in two 8-passenger models—sedan and limousine. Deluxe and super deluxe Fords



Unrestricted production of petroleum in Illinois' booming young industry long has been the bane of states which try to curb output. Last spring it looked for a while as if Illinois' flow had topped off—and then new well completions resulted

in a peak above 500,000 bbl. a day. Now, however, the state's production has declined sharply. Moreover, the drop came at a time when prices of oil and refined products were showing vague signs of strength. Result: better prices in the oil business.

have undergone the most complete design change since the V-8 engine was introduced nine years ago. Bodies are longer, wider, and roomier. The seat width has been increased as much as seven inches, and the exposed portion of the running board is only a couple of inches wide. The wheelbase has been increased and riding qualities improved. While the Ford is a big, roomy car, its styling is not of the Torpedo type but represents a long step forward in Ford's conception of functional design.

Acceleration Improved

The Mercury, also considerably longer, retains the 95 hp. V-8 engine and incorporates transmission gear changes which improve acceleration. Bigger tires, as well as improved springing and shock absorber control, enhance the ride. The interiors have been completely redesigned.

Lincoln custom models are mounted on a 138-inch wheelbase, feature exceptional roominess and such luxury appointments as hydraulic window lifts and front-seat adjustment. The Lincoln Continental line, first introduced as a cabriolet last year, now includes a coupé model.

The Lincoln-Zephyr line, which boasts over sixty improvements and refinements,

is available in four body types—sedan, coupé, club coupé, and convertible.

Like other automobile manufacturers, Ford sets its sights high, contemplates an output of 1,100,000 Ford and Mercury models. This is the same figure that Chevrolet has set as its goal.

Pontiac Shows New Models

Another car, which also made its bow to the press this week, as the preview season draws to a close, is Pontiac. For the seventh successive year Pontiac employs the distinctive Silver Streak style motif, but the three lines of cars announced Sept. 12 are all Torpedo models. As predicted (*BW*—Aug 31 '40, p. 26), two wheelbases are offered, 119 and 122 in., and customers can get either a six- or an eight-cylinder engine in any model. The eight costs \$25 more than the six.

Pontiac has increased prices an average of 3%, mark-ups on individual models ranging from \$1 to \$45. But extra equipment formerly costing \$6.55 to \$34.20 extra is now standard.

Engines are more powerful; chassis longer and heavier. The six now delivers 90 hp., while the straight eight, with dual carburetion, is rated at 103 hp. A new oil filter, which never needs cleaning, filters all the oil before it enters the pump and bearings.

London Rushes Arms Orders

British mission here is buying at rate of \$170,000,000 a month. Demand has changed with loss of allies. Trouble over matching our defense specifications.

ONE YEAR after the outbreak of war in Europe, the British are placing orders in this country at the rate of nearly \$170,000,000 a month. As Goering rained death on London this week, a staff of 1,000 persons was working feverishly at the headquarters of the British Purchasing Commission at 15 Broad Street, in New York. All-night German raids on the British capital emphasized the urgency of cabled demands for more airplane engines, additional bombing planes, thousands of shells, more guns, and fresh shipments of medical supplies.

Buying authorities declare that purchases here during the first 12 months of fighting amounted to \$2,000,000,000, and declare that at least that amount will be ordered in the next year, always assuming that the war goes on.

No breakdown of the goods already bought in the United States is available at buying headquarters, but experts estimate that at least \$1,200,000,000 went for airplanes and engines, with machine tools, munitions, and steel bulking large in the remaining \$800,000,000 of orders. When the French orders were taken over in July, it was estimated that they included at least \$65,000,000 of machine tools. And following the retreat from Flanders, the United States shipped 80,000 machine guns, 700 field guns, 500,000 rifles, and "mountains of munitions" to Britain according to reports in Washington.

Washington Comes to Fore

When the Allied buying missions arrived in New York last fall, manufacturers' representatives filled their waiting rooms, eagerly seeking a share of the business which was being transacted on a cash-against-shipment-document basis and which looked big to industry.

Developments of the last six months have pushed Washington into the lime-light, for with \$10,000,000,000 already devoted for defenses, Britain's \$2,000,000,000 has shrunk into comparative insignificance, though the British are still bargaining in terms big enough to interest the largest companies in this country. Right now, for instance, the English are reported to be interested in placing an order for 4,000 tanks while the total on order for Washington is only 1,800. Insiders look for big British orders for munitions if London will agree to conform to American designs. Right now, apparently, considerable business is being held up because Britain is insisting

on her own designs and Washington, in view of our own urgent demand for armaments is refusing to convert any important part of American capacity to

British specifications. Both Canada and Australia are represented in some of the machine tool orders under negotiation.

A good many of the French orders taken over by the British have now been filled but not all of the machines are being delivered. In some cases the British are unable to use tools built to French specifications. Occasionally these are being converted; in other cases they have been released to the United States, at a discount, for rebuilding.

The variety of British demand expanded after the fall of Belgium and France. Belgian smelters had been count-



Canada and the U. S. have different ideas about training their armed forces, largely because they are up against different situations. When the U. S. Army held its war maneuvers recently, trucks labeled as tanks served the necessary purpose (below). But Canada wants her army

to have experience with something nearer the real thing before it meets Hitler's Panzer-Divisionen. So she seeks the 229 old World War tanks which have been gathering rust at Fort George Meade, Md. (above). Meanwhile, Britain negotiates for the production of 4,000 new ones.



The U.S. Navy's in the Market for Yachts



Wide World

EVER SINCE 1929 yachts of important size have gone begging, but at last there's some hope for yacht owners. Witness the 85-ton *Trouper* (above), built last year for C. A. Tilt, president of the Diamond T Motor Car Co., Chicago, at a cost of \$300,000. This week it was turned over to the Brooklyn Navy Yard. The Navy Department bought it for \$150,000.

On Aug. 17 the Navy announced it had paid \$890,370 for three yachts and three tugs. In addition to the *Trouper*, purchases included the yacht *Onuego* from Masterson & Schlegel, New York, for \$70,000, and

the *Entrophy* from Harry Furman, Schenectady, for \$125,000. Previously announced was the purchase of the *Arus* from R. Livingston Sullivan, Philadelphia, for \$70,000. All will probably be used for patrol duty.

The working craft can snoot their fancy sisters on the basis of price. Ira S. Bushey & Sons, Brooklyn, sold the tugs for \$181,793 apiece. On Aug. 14 the Navy announced the purchase of 12 trawlers for conversion into mine sweepers. All but three (whose home port is Chicago) were bought in Boston. Prices ranged from \$190,000 to \$525,000.

ed on for huge supplies of both copper and zinc, which are now being bought in the United States, and France was expected to supply the bulk of the bauxite for Great Britain's aluminum industry as well as large supplies of guns and munitions.

British Share Mounts

The character of American foreign trade is being radically influenced by the war. Every important market in Europe is now cut off by the British blockade. As a result, Britain—which normally takes about one-third of our European shipments—took 54% in June and almost 90% in July. August returns are expected to run in about the same proportions. The remaining 10% of our European sales went mainly to the Soviet Union, Finland, Sweden, Portugal, and Spain. And of our total exports throughout the world, Britain is now taking more than one-third.

How our business with Britain stacked up during the last year is evident in the table below showing our exports month by month. The trend of the last two months is expected to continue as long as Britain successfully maintains the blockade and her resistance to German invasion, for of the \$2,000,000,000 or-

dered here last year, less than one-half has already been delivered.

	Exports to U. K. (000 omitted)	% of total exports to U. K.	% of European exports to U. K.
1939			
July	\$33,476	14.6	37.8
August	47,434	18.9	41.6
September ..	60,339	20.9	49.7
October	52,924	15.9	40.7
November ..	31,485	10.8	30.2
December ..	50,395	13.7	32.0
1940			
January	67,143	18.2	38.9
February ...	58,534	16.9	35.3
March	51,890	14.7	32.4
April	53,339	16.5	38.0
May	49,822	15.3	40.0
June	77,868	22.2	53.8
July	108,368	34.2	88.2

British Push Exports

Make special drive to sell goods in U. S. Trade groups organized to drum up new business.

GREAT BRITAIN, well aware of the two-edged nature of foreign trade, is now more concerned than ever before over the necessity of selling abroad in order to maintain imports. Normally, 30% of British exports went to continental Europe. With that market gone, more and more emphasis is being placed on North and South America, where the

bulk of the British buying is being done.

One example of trade technique being followed by Britons to increase sales in the United States is the establishment of a trading company, the Associated Manufacturers of British Coats and Suits, Ltd., representing 110 of the leading manufacturers in Britain, to push the American sale of sportswear for women. A permanent selling organization has been established which aims at keeping American retailers supplied with the latest models of British ready-to-wear sportswear garments, made in England of typical British cloths, but manufactured on the American size system and from American models.

"Saint George and the Dragon"

Every garment will carry the trading company's special trade-mark, inscribed "Saint George and the Dragon," and a label guaranteeing its British origin. The trading company hopes to cooperate in the establishment of special British sportswear departments in retail stores in key cities in the United States. Similar groups representing furriers, drapers, hosiery mills, children's wear manufacturers, etc., are also functioning here and in South America.

To American importers worried about possible failure in deliveries, British commercial circles have been stressing Britain's continued control of the sea and the availability of adequate shipping, despite heavy losses in the Channel. The virtual cessation of shipping to the Continent and Mediterranean ports has released a considerable tonnage for North and South American use. Additional assurance of continued production despite air raid damage is embodied in the completion of plans for the interchangeable manufacture of goods on export order. If one plant is damaged, work will be completed in others, by exchange of raw materials, patterns, and techniques.

Wool Allocated for Export Goods

That the British government is solidly behind the efforts of exporters is evidenced by Ministry of Supply rulings which reserve only 25% of the wool imported into England for domestic needs. Army and Navy requirements are not included in this figure, but an estimated 60% to 70% remains, allocated solely to the manufacture of goods for export.

Best assurance given to American importers that goods will be delivered on schedule is the new organization recently completed by the British Board of Trade, to assure manufacturers adequate raw materials and adequate shipping space. It is understood that the British have finally organized 168 export groups, each within an industry engaged in export trade, which function in cooperation with the established trade associations, and in turn with the Board of Trade and the Ministry of Supply.



*We've got to have those figures by
four o'clock!*

*Calm yourself, Chief! We'll handle
this on the new*

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NO GLARE!

Scientifically designed no-glare answer dials reduce eye-strain to a minimum, increase operator speed and efficiency, contribute to all-around "Comptometer Economy."



STOP! Operating errors due to imperfect manipulation are "stopped dead" by Comptometer's exclusive Controlled-Key safeguard. Result: remarkable first-time operating accuracy, increased economy.

NEW FEATURES OF THE MODEL M CUSHIONED-TOUCH COMPTOMETER

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For minimized eye-strain:
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• Whether in a figure-work emergency or the normal, efficient conduct of your business, Comptometer methods and Comptometer machines "deliver the goods"—*quickly, accurately and economically!*

That's why you'll find Comptometers "standard equipment" in the offices of the established *champions* and up-and-coming *challengers* among business and industrial concerns.

That's why the phrase "Comptometer Economy" means *more figure work handled in less time at lower cost* to so many executives.

And that's why the new Model M Cushioned-Touch Comptometer—which combines all the fundamental Comptometer advantages with many important improvements—is being greeted so enthusiastically!

May our representative in your community show you how Comptometer methods and machines can save your firm's time and money? Telephone him . . . or write direct to Felt & Tarrant Mfg. Co., 1733 N. Paulina Street, Chicago, Ill.



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Congress in Defense Housing Snarl

USHA, holding out for subsidy money, follows one line of strategy while Coordinator Palmer follows another. Meanwhile, projects and surveys are started.

THE CONFUSED legislative situation on defense housing does not so much reflect a real confusion in planning housing for defense workers as it does an offside fight between the United States Housing Authority and its congressional opponents. The Housing Authority is unpopular in the House, partly because of opposition to subsidized housing and partly because of anger at USHA's inept lobbying and sly accounting.

The legislative amplifications are numerous. USHA is already empowered by law to build almost any type of defense housing. No money has ever been appropriated under this authority. The authority has about \$150,000,000

which it could probably use, but it is holding off because it wants to have subsidy money available, for the future at least, on any outlay it makes.

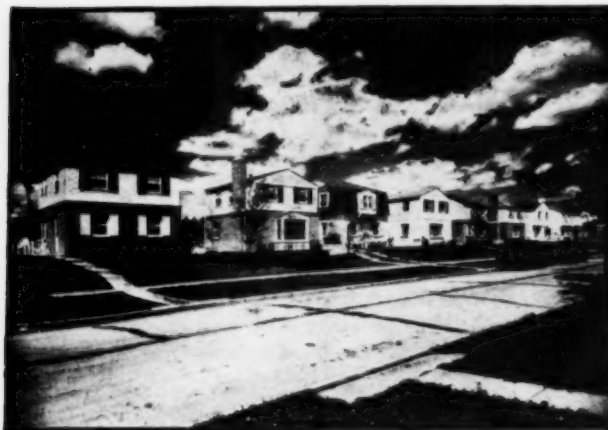
Pending before Congress is an entirely different authorization, worked out by Charles F. Palmer, defense housing coordinator, and therefore having "official" status. This would put the responsibility for government-owned defense housing under the Federal Works Administrator, operating through the Public Buildings Administration. This bill authorizes an appropriation of \$150,000,000. There is a loophole by which other FWA agencies, including USHA, could be brought into the program.

Independently of these bills, an appropriation of \$100,000,000 for defense housing is included in the five-billion-dollar supplemental defense bill, now passed. This money can be assigned by the President to whatever locality and whatever federal agency is recommended to him by the Army or Navy. It has not yet been decided whether this money will be applied against the \$150,000,000 authorization in the coordinator's bill or whether it will be additional money.

Subsidized Housing Required

What has happened, essentially, is that the Housing Authority has been working through its senatorial friends, particularly Wagner, to take charge of the entire program. Meanwhile, the Administration has been trying, in deference to congressional susceptibilities, to minimize USHA's participation. Probable outcome is that USHA will be restricted to the subsidized phase of defense housing. A substantial volume of subsidized dwellings will be needed, particularly for married enlisted men, whose income in many cases is less than \$1,000 a year.

Chicagoans Develop a New Trick in Building Row-Houses

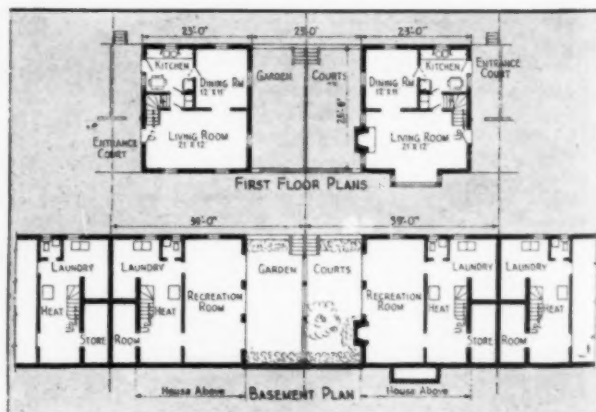


LAST SPRING, Lind & Luckman, Chicago architects, figured out an adaption of money-saving row-house construction to produce single-family homes without the disadvantage of identical walls and exteriors. Their secret is to dig one big cellar the length of a city block, build cross-walls of concrete, put the houses 9 ft. apart on top of the ground.

When a builder, C. Henning Vagtborg, put 14 of these houses in a suburban tract, they sold like hotcakes—and one important selling point was the added cellar space. Now Vagtborg is not only accumulating more suburban orders, but has actually started to build 140 houses inside Chicago.

Basic trick of Lind & Luckman's plan is to dig a trench 3 ft. deep the full length of the block and throw the excavated earth out in front to provide a terrace 3½ ft. high. They then pour the front and back foundations continuous and build the cross-walls of concrete block masonry. Next step is to erect the houses in pairs—each pair with a basement party wall. The projecting basement room is for laundry and storage, thus leaving most of the basement within the house walls for a big recreation room. The laundry is roofed with a reinforced concrete slab which makes sidewalk and service court for each adjoining pair of houses—and avoids the expense of backfill.

All houses have six rooms and are put on lots 40 ft. by 125 ft. In the suburbs, the houses sell for \$6,995, with extra charges for bay windows, fireplaces, or garages. The Chicago houses, which are slightly larger, sell for \$7,495.



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Gears, like horses, show their age in their teeth. But Texaco offers ways to increase gear life with savings in power and shut-down losses as well. Texaco's line of gear lubricants... so outstandingly efficient that they are preferred in thousands of industrial plants... plus Texaco engineering service and quick deliveries from more than 2300 Texaco supply points... are saving money for industry every day.

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48 States



And, in any case, the Administration, for social reasons, is anxious to keep the principle of subsidized housing alive.

But, behind this political jockeying, real progress has been made on getting housing started. USHA, first in the field, has cleared 17 projects costing \$28,675,000 and providing 7,475 dwelling units, of which several are already under construction. Four are being handled by Army or Navy and the rest by local housing authorities. Seven other projects, involving 2,863 units, are scheduled for an early start.

Money for these projects, all in the form of loans, was obtained either from previous earmarkings to these communities, from economies, or by canceling outstanding earmarkings on which there have been delays. Although no arrangements have been made to subsidize these projects, the authority is available and can be used now or later, when the defense emergency is over.

RFC Money Employed

On another front, the FHA rental division is being brought in. The President has turned over \$10,000,000 from his "blank check" emergency fund to the RFC Mortgage Corp. The corporation, operating like any speculative builder, will use this money to meet the 20% down payment on FHA-insured apartment houses, thus providing about \$50,000,000 worth of housing. No projects have been put under way as yet, but several are in preparation. It is hoped that when the buildings are completed, the corporation can sell its equity to private investors and thus create a revolving fund. The corporation could either retain architects and engineers to carry out its projects, or, after the coordinator's pending bill passes, use the facilities of the Public Buildings Administration.

Defense Needs Calculated

Meanwhile, the housing coordinator has been setting up a staff and making detailed surveys of the defense need for housing. In most cases this amounts to a determination of the number of families to be brought into a community from outside, since vacancies appear to be negligible all over the country. Preliminary estimates indicate immediate need for about 130,000 dwelling units—50,000 for Navy employees and married enlisted men; 40,000 for the War Department; and 40,000 for industrial workers in defense industries. The last figure is subject to considerable upward adjustment.

Real efforts are being made to induce private builders to go ahead and meet the local needs. Realtors, bankers, and civic leaders in communities experiencing shortages are being told that the defense boom may not prove as temporary as they think, that if they don't do the job the government will.

Aid for Little Fellow

SEC reports to TNEC on ways of helping small business in need of new capital.

PLANS TO AID small business in raising new capital again have been coming to the fore in Washington, and the problem moved front-and-center this week as the Securities and Exchange Commission reported to the Temporary National Economic Committee on the subject. Any day the arguments bid fair to recommence as to who's to do it and how.

Two types of plans—which might become parts of a single program—were suggested by SEC to TNEC. One contemplates that the federal government guarantee loans by banks to small corporations. The other would set up regional lending companies to provide risk capital. Basic point to be settled right away is what kind of money small business needs. In the massive record of the TNEC hearings you can find, if you have the time to dig it out, a discussion between Owen D. Young as witness and SEC Chairman Jerome N. Frank for the committee in which they boiled the problem down to two essentials: (1) Most small ventures don't need bank loans for working capital, and even long-term loans would be dangerous because a temporary business recession would result in defaults and bankruptcy; (2) the crying need is for partners who will put up risk capital for new plant and machinery and who will take potluck with the present owner in profits and losses.

Who'll Risk the Capital?

If this attitude is accepted, the small business man needs to raise permanent capital through sale of common stock. All right. Now all he has to know is, "Who'll buy the shares?"

Chairman Frank Long has been on record for regional credit corporations to act in the capacity of investing partner in local industries. He accepts the fact that business doesn't want the federal government to put up the money, doesn't want Uncle Sam on the board of directors dictating policy. Hence these regional lending corporations should be privately owned. If need be, the Reconstruction Finance Corp. could buy preferred stock on the understanding it would receive no more than minority voting rights.

But there still remains the problem of wooing local capital into risk-taking ventures. This can be done, most observers agree, if there are sufficient profits in sight to justify the risks to be taken. But if large investors feel that taxes would take too big a bite, they presumably would rather stick to tax-exempt bonds. In other words, there may have to be amendments to the tax law granting preferential treatment to the risk-takers before the credit corporations

Pipe Locator



This handy device, which was recently demonstrated in Los Angeles, Calif., is an electrically-operated pipe locator, to be used in tree planting. The machine indicates where pipes are, so that you won't strike them when digging holes for trees.

would make a very strong bid for investment money—and such an amendment not only would be tough to devise but would take a long time in Congress.

Difficulties besetting this regional idea make the federal guaranty for bank loans sound charmingly simple. The borrower would come to the bank, the banker would extend the loan, and the RFC or some other government agency would insure the bank against loss. This was much the thought of the Mead bill on which hearings were held last year.

Those who think that small businesses need permanent equity financing, and that they shouldn't saddle themselves with fixed-interest debt, find it hard to cotton to the debt-guaranty plan. They figure that if it isn't a bankable loan in the first place the borrower's problem can't be solved realistically through an unsound guaranty.

Bonneville Customer

Aluminum Co. becomes the authority's first industrial power-user. Iron mill appears stymied.

NEXT WEEK the superintendent of the new \$4,500,000 plant of the Aluminum Company of America at Vancouver, Wash., will throw the master switch that controls reception of power from Bonneville Dam, and the machinery for processing aluminum ingots from alumina, the pure powder form of the ore, will begin to operate.

Aside from its importance to the

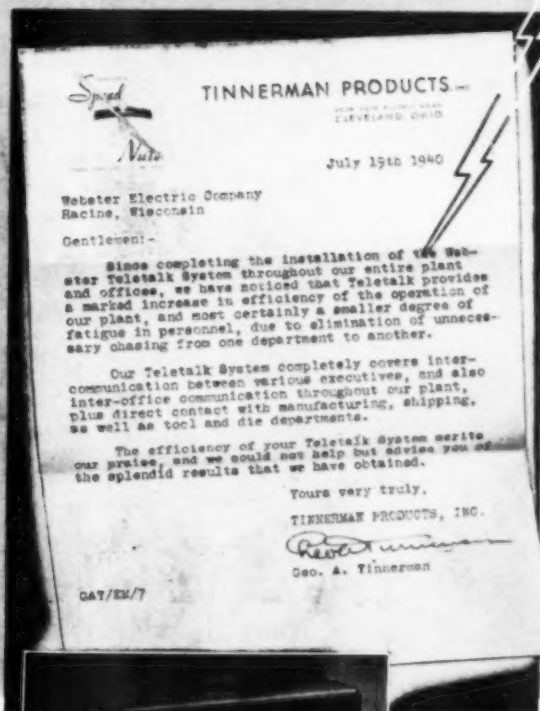
"Teletalk provides a marked increase in efficiency... and most certainly a smaller degree of fatigue in personnel"



R. S. Smith, in charge of Order Control using Model 212 Teletalk.



Charles W. Lewman, Shipping Clerk, operating his Model 110 Teletalk.



G. A. Tinnerman, Vice Pres., issuing instructions on Model 212 Teletalk.



T. B. Keating, Tool Foreman, receiving instructions on Model 5A-45 Teletalk.

The Teletalk shown here is Model 212. It is obtainable with an annunciator feature and can also be furnished with a telephone handset for confidential use. Other models available which require no manual operation and others which are adapted for paging only.



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Intercommunication

Tinnerman Products Inc. of Cleveland makes speed nuts. They sell a speed product. *They believe in speed.* It is enlightening for other manufacturers to read Mr. Tinnerman's letter, reproduced above.

Teletalk Amplified Intercommunication is the pulse of business. At your finger tips you control the workings of your organization. Teletalk brings others to you, takes you to them, instantly, quietly. Teletalk increases the capacity of your telephone switchboard by relieving it of all inter-office calls. And employee's end-of-the-day fatigue is reduced.

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Industries

grow

in Pennsylvania



The textile mill illustrated above employed 1,600 people. It was not as modern as this company's other plants, its costs were high and there was talk of closing it. The Department of Commerce of Pennsylvania closely cooperated with the company and the decision was reached to modernize the plant and invest more than a million dollars in its improvement. The company is now employing 2,400 people at this one location.



ONE OF THE COUNTRY'S largest manufacturers of girls' cotton, rayon and silk dresses moved into an eastern Pennsylvania city early this year, found a suitable plant, started operations here, hired hundreds of operators as fast as they could be trained and now has its entire production in Pennsylvania.

Great things are happening in Pennsylvania these days. New plants being built. Old ones expanding. Recent statistics show Pennsylvania's gains are the largest for the entire North Atlantic seaboard. This is no wartime boom; it began months before war started.

If you are going to open a new plant or start a branch, consider what you can find in Pennsylvania . . . its proximity to rich markets . . . its abundance of raw materials . . . its peaceful labor market . . . and the help the State Government is giving to business. Write to the Department of Commerce, Harrisburg, for the booklet: "Pennsylvania—Its Many Industrial Advantages."

Pennsylvania

where your business can expand



ARTHUR H. JAMES, Governor • RICHARD P. BROWN, Secretary of Commerce

West Coast and to national defense (BW—Aug 24, '40, p. 25), the event marks something of a milestone for the Bonneville Power Administration. The giant project's first industrial customer is "on the line."

In reaching its production goal of 60,000,000 lb. of refined aluminum annually, Alcoa has a contract for Bonneville power starting with 27,000 kw. and building up to 32,500 at a monthly increase of 500 kw. A second contract, on a five-year basis, is for another 32,500 kw., effective when Bonneville's No. 3 and 4 generators are ready for service next January.

A Couple More on the List

Two other industrial customers are on the Bonneville list—but aren't yet using power. One is the Sierra Iron Co., Vancouver (BW—Mar 2, '40, p. 16); the other, Pacific Carbide & Alloys Co. (subsidiary of Stuart Oxygen Co., San Francisco). Both plants are under construction. Sierra Iron's contract, starting around 3,000 kw., calls for 6,000 kw. in June, 1941. Status of this development, however, is doubtful as the enterprise appears to be stymied, reportedly for lack of capital. Construction of a plant was started, then abandoned. Official explanation is "illness of the president, D. H. Botchford." Pacific Carbide, on the lines of Northwestern Electric Co. (private utility of Portland) during construction, has contracted for 2,000 kw. when the electric furnace is installed.

Last week, Bonneville had two more "bites" on the fishing lines thrown out to catch new industries. These came from the Reynolds Metal Co. and the Swiss Aluminum Co., whose combined requirements are estimated at 60,000 kw.

Bonneville's current position is this: With present capacity of 86,400 kw., with 108,000 kw. from new generators due in January, and another 108,000 the latter part of 1941 (total of 302,400 kw.) the Administration has obtained industrial contracts for 73,000 kw.

Only Five PUD Deals Negotiated

Bonneville, of course, has contracts with other power users, but despite all the hullabaloo about the Public Utility Districts in Washington and Oregon (for public distribution of Bonneville power) only five contracts, for a total of 5,600 kw., have been negotiated so far by PUD groups. A Northwest Rural Electrification project has signed for 300 kw.

Bonneville press agents are emphasizing that 16 municipal systems in Oregon and Washington have agreed to buy power from the project. Present contracts from this source total 6,400 kw.

Dr. Paul Raver, Bonneville Administrator, announced last week the drafting of a proposed legislative act giving the Administration authority "for system-wide acquisition of electric utilities,"

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hoping, no doubt, to build up his "public body" load since the Bonneville Act requires a 50% reserve of installed capacity for such contracts.

Biggest user of Bonneville power is the private utility, Portland General Electric Co., with a contract for 20,000 kw. expiring in November this year. A year's option on this contract was signed recently and negotiations for a future long term contract are already under way. Pacific Power & Light Co., another Portland utility, has a contract for 1,500 kw., making the total load to private utilities 21,500 kw.

Fewer Milk Drivers?

Shift from home routes seen as Chicago labor award hits firms already pinched by vendors.

CHICAGO MILK DRIVERS had two off-again-on-again strikes last May, followed by weeks of negotiation. The drivers wanted fewer working hours per week, and gained a 12-hour concession. The dealers demanded cuts in salary and commission scales to yield the average driver about \$40 a week instead of the prevailing \$51.47. The drivers refused to budge, and the whole dispute went to arbitration.

As arbitrator, Mgr. Dennis J. Dunne heard three months of testimony. Last week he made his award, and the dealers are still spitting out loose teeth. The award confirmed the 12-hour-a-week time cut, lopped \$4.26 off the men's paychecks. It figures out as a 22% cut in working hours, an 8% cut in weekly pay, and a 10% boost in hourly wage rates. The employers claim that replacing the vanished working hours with new men will boost their costs above present levels, at which they are already losing money.

Union Outfits vs. Non-Union

As is true of practically every big city's milk situation, Chicago's is a mess. At the bottom of the price war which has been going on since last January is the cut-price competition provided by non-union operators, generally referred to as "Meadowmoor" from the name of the largest unit. And at the bottom of the Meadowmoor method is the vendor, an independent business man who buys his milk at the bottling plant's platform, resells it for what he can get. He lays down quarts at 7½¢ in the grocery store, where they retail for 8½¢.

The union outfits say they cannot break even at this price, but they meet it to hold their trade. The best they can do on home deliveries is 13¢ in quarts. Home-delivered milk, it is stated, has fallen from 85% of the total to 48% in 10 years. Today there are only 3,633 union wagon routes, while vendor routes have increased to 634. The



Build for low *annual* cost with **CONCRETE**

Low first cost in a home may lead to disaster for the householder, who finds himself saddled with a jerry-built home and exorbitant repair bills. To provide low cost shelter a home must cost a minimum to *buy, live in and maintain* year after year! In short, it needs the low annual cost and high resale value of concrete construction.

Structural Security Reduces Mortgage Risks

A householder who enjoys the security of a firesafe concrete home with its freedom from excessive repair bills, is far better able to meet his monthly payments. And concrete's enduring strength outlasts long-term financing. Mortgage investor and home buyer *both* benefit from concrete's ultimate economy.

Over 45,000 concrete houses built in the past four years make this the fastest-growing type of home construction. It will pay you to investigate.

HOW TO GET A CONCRETE HOME

Ask a *Concrete Products Manufacturer* or *Concrete Contractor*—see phone book—for names of architects and builders experienced in concrete.

Write us for further information about concrete as a preferred investment for large mortgage lenders and home developers.

● The charming small home of Roy W. Kicker, in Birmingham, Alabama, is of concrete construction—concrete walls, concrete floors and a firesafe roof. Nelson Smith, architect; Chris Hampen, builder.

PORTLAND CEMENT ASSOCIATION, Dept. 9b-12, 33 W. Grand Ave., Chicago, Ill.

A national organization to improve and extend the uses of concrete . . . through scientific research and engineering field work

big milk companies are now asking themselves whether vendors may not prove to be the answer to their problem. The companies always make a profit from buying and processing milk, but they lose this and more, too, in performing the delivery function.

Union Is Hard-Pressed

Best guess is that the union dairies will rapidly lop off 600-odd money-losing routes, load this business on neighboring routes. They also will begin handing over more of their volume to vendors, who in turn will raid the union drivers' routes by cutting prices. The wagon drivers' union, hard-pressed for dues and with its membership off 3,000-odd from its peak of 7,700, is already trying to put buttons on vendors, but has a long row to hoe before it succeeds in organizing those rugged individualists.

General opinion in the trade is that the union dairies will soon take a cut on home milk prices, to try to halt their loss volume. Also, it is generally believed that the Meadowmoor concerns are losing their enthusiasm for present low prices on store milk. But realistic dealers believe that store milk has definitely grabbed first importance for as long as anyone can foresee, and that vendor routes are heading straight for second place, leaving company-owned home-delivery routes a poor third.

Last week's award runs only until May 1, 1941.

Bootleg Coal Remedy?

Additional tonnage quotas are recommended for operators who re-employ bona fide miners.

PENNSYLVANIA'S BOOTLEG-COAL PROBLEM may or may not have a solution, but the anthracite operators and the United Mine Workers keep trying to find one. Latest proposal, growing out of conferences in Harrisburg between Gov. James and the Committee of 12 (*BW—Mar 23 '40, p. 25*) is that additional tonnage under the state's allocation program (*BW—Feb 3 '40, p. 18*) be allotted to operators who absorb free-lance miners.

This week the question was in the hands of a subcommittee of four—two for the operators, two for the miners—who are expected to report back to the governor in the near future.

Plans under discussion call for the most rapid possible absorption of all former employees of legitimate collieries who are now working bootleg holes. Those who could not qualify for admission to the legitimate industry, having never been anything but bootleggers, would be recommended for state and federal unemployment compensation. Those who could qualify, but who did not receive lawful employment within a

reasonable time, would be similarly relieved.

The union position, as stated by Martin F. Brennan of Shamokin, president of District 9, U.M.W.A., and a member of the subcommittee of four, is that the anthracite industry could re-employ bona fide ex-miners without burdensome expense to the producing companies, providing the supplemental allocations were made.

Both the operators and the miners oppose employment of any outsiders or newcomers. "We are just as much opposed to bankers, doctors, lawyers, ex-judges, politicians, and state employees in the bootleg mining industry as the operators are," Brennan said last week.

Diggings Still Offer Problem

Major W. W. Inglis, president of Glen Alden Coal Co. and chairman of the Committee of 12, said that the union had failed to take a positive enough stand on what should be done to exterminate the bootleg mining that would remain after the eligible miners had been reabsorbed. (The plan under discussion makes no specific provision for closing bootleg diggings other than those formerly worked by re-employed men.)

"I hope it works," said Major Inglis, "but we will have to wait and see."

Besides Brennan, other members of the subcommittee of four are Thomas F. Kennedy, secretary-treasurer of U.A.-W.A.; Ralph E. Taggart, Philadelphia & Reading Coal & Iron Co.; James Pierce, Lehigh Navigation Coal Co. Gov. James is expected to name another committee to work with this group.

TRANSPORTATION

Biggest Trucker

Fourth huge highway transport merger readies financing. Will run trucks and lease them.

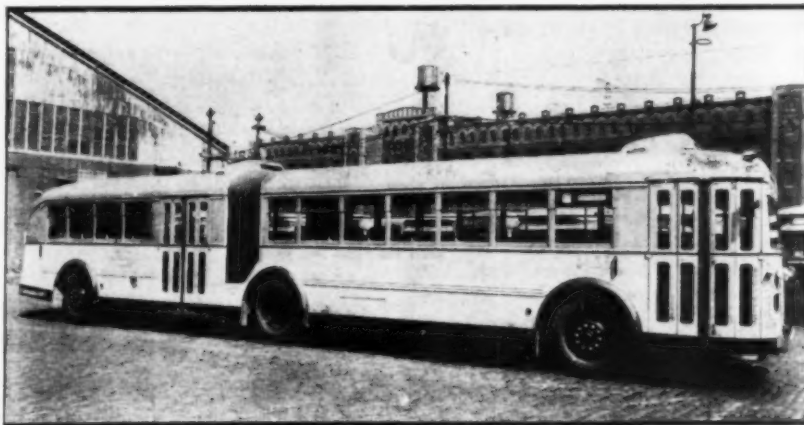
THE TRUCKING INDUSTRY has enjoyed a phenomenal growth. For the past several years its volume has climbed between 25% and 30% annually. Thousands of companies have been organized and expanded from local short-haul carriers to cross-country truckers.

In the eastern half of the nation, many essential short-haul units have consolidated into three large corporations, the U. S. Truck Lines, which earned \$1,222,162 on revenues of \$12,056,758 last year, the Interstate Motor Freight System, with \$394,000 net in 1939, and Keeshin Freight Lines, Inc., which is struggling to make its revenues catch up with the expenses of its rapid expansion.

Now a fourth merger awaits only Interstate Commerce Commission approval before launching the financing which will make it the largest trucking concern in the U. S. (*BW—Mar 23 '40, p. 37*). Its subsidiaries earned \$2,500,000 last year—more than double the total of its nearest competitor. Their gross revenues of \$46,000,000 for the first eight months of 1940 are 18% ahead of the similar 1939 period. The Transport Co., as it will be named, will operate 8,900 trucks over-the-road and will lease 5,500.

Acquisition options good until Nov. 15

A 58-Passenger Bus Bucks New York Traffic



47 feet long, and with a seating capacity of 58, this diesel-electric bus started test operations in New York City this week. Built by the Twin Coach Co. of Toledo, Ohio, the bus is supported on three axles. Front and rear axles provide steering facilities, and the center axle, which is

fixed, provides the drive. Front and rear wheels are controlled by the operator through a single steering mechanism, so the bus can turn corners easily. The rubberized vertical section just back of the center of the bus (which remains rigid on curves) is designed to absorb jolts.

"Another says M to mal work y tunity

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"It Gets You There Refreshed..."

Says
Mr. F. Gladden Searle
 Vice-President in Charge of Sales
 of the Continental Can Company

"I myself travel over 50,000 miles a year on an average," says Mr. Searle. "All our executives and salesmen, together, probably travel several million miles in the period of a year."

"Much of this mileage on trips over 250 miles is by Pullman."

"As Pullman enables you to travel at night, you gain valuable time. You get there refreshed, and ready to 'hit the line' next day."



Business Executives Acclaim Many Advantages of Pullman for Today's Travel Needs!

"Another advantage of Pullman travel," says Mr. Searle, "is that it enables you to make out reports or do any other work you may not have had an opportunity to finish before you left."

But, in our interview, Mr. Searle primarily stressed the relaxation Pullman makes possible, the chance to get a good night's sleep, and the very great importance of that in business.

He also stressed the very important fact that you can take the luggage you need. When you consider the 150 pounds you are allowed to check free in the baggage car, in addition to the "personal" luggage in your berth or room, you will see this is an important business ad-

vantage . . . one you should not ignore!

Everywhere, we find, business executives are stressing the importance of going by Pullman.

If you want to get maximum efficiency out of your men, why not suggest that they go that way? Why not conserve your own energies more fully, by going by Pullman?

Pullman's dependability, in any kind of weather, is another outstanding asset that you will appreciate.



Your business efficiency is conserved by a good night's sleep. That's why Pullman holds such appeal for business men. When you step off a Pullman you are ready to tackle your hardest customer on equal terms!

Pullman

Copyright 1940, The Pullman Company

FOR "PLUS" COMFORT

have been given to the Transport Co. by more than 20 of the companies to be included. For a controlling interest, operating units will receive part cash and part stock in the consolidation. Kuhn, Loeb & Co. will handle the financing, expected to be carried out in December, by issuance of about \$12,000,000 of common and convertible preferred stock. The company will be capitalized at about \$25,000,000.

Expected to Reduce Costs

Genial B. M. Seymour, who will resign as head of the Terminal System, Inc., to become president of the Transport Co., sees many advantages to the merger. Elimination of duplications will boost profits, he says; for instance, the lines involved now have 342 terminals in 160 towns, and 150 of these will be eliminated—including 22 now in New York City for which a large single terminal will be substituted. Other advantages are seen in large-scale discount purchases of equipment and supplies and in reduction of insurance costs either through self-insurance or formation of wholly-owned insurance companies.

Over-the-road companies, the familiar type of motor carrier of freight both intra- and inter-state, account for about four-fifths of total revenues. The remainder is brought by truck-leasing concerns which rent trucks to companies to whom the delivery of goods is only an incidental operation. Metropolitan Distributors, Inc. of New York City, to be included in the merger, is the oldest and largest truck-renting concern in the U. S. with 1,700 vehicles now out on leases, one-third more than at the year-end. Metropolitan trucks have carried the New York Times for more than 25 years. They handle the transportation problem for such companies as Remington Rand, Anheuser-Busch, Kellogg's, and Standard Oil.

Some trucks are refrigerated for the transportation of meat; others have collapsible sides for easier removal of beer barrels. Metropolitan paints and letters the trucks to lessee specification, takes care of all maintenance, supplies gasoline and oil, and gives each truck a daily bath.

About 25% of the stock in the new corporation will be owned by du Pont interests, which could thus receive dividends from the truck lines over which they might ship many of their products. General Motors also is interested in the merger and expects it to be an active market for General Motors trucks and equipment.

Advantages in It for Railroads

Although the consolidation should be in a position to attempt to woo less-than-carload freight away from the railroads, many executives of steam carriers say that they welcome such mergers for what might be called public relations and regulatory reasons. The more such mergers,



The new gasoline-powered, dual-motored Thorco four-wheel drive—designed to haul two trailers carrying a load of 25 tons.

they point out, the less easy it becomes to play up a difference of opinion or litigation between railroad and trucking interests as a case of "the big, bad, wealthy railroad taking advantage of the poor, defenseless local company." And, they add, when small truckers become subsidiaries in big consolidations, publication of the familiar "cheaper than rail" rates will be out, for the consolidation, doing interstate business, will be bound by ICC's uniform schedules.

Two-Engined Truck

Thorco builds new gasoline four-wheel-drive truck to haul 25-ton loads. Uses 98% Ford parts.

NEW COMPETITION with diesel trucks in inter-city hauling of loads up to 25 tons is seen in development of the gasoline-powered dual-motored "Thorco" four-wheel drive. Built 98% from standard Ford parts and applied to a Ford cab-over-engine truck, the drive costs about \$3,000, delivers 190 hp., and can be serviced by thousands of Ford outlets.

A Detroit trucking firm is reported to have purchased the first drive from Ray F. Thornton, the inventor, and to have placed it in regular service between Detroit and Chicago. Thornton is now setting up the Dual Motors Co., and plans to build ten units weekly. Present headquarters are at the Clyde M. Ford auto agency, 21925 Michigan Ave., Dearborn, but production facilities for assembly of the drive will be set up elsewhere in Dearborn.

Thornton originated the Thornton and Grice tandem four-wheel drives for hauling loads in the 10-ton range. The Thorco development is intended for haul-

ing 25-ton loads in two "bottoms," or trailers, at high well-maintained road speeds. By using two 95-hp. Ford V-8 motors, ample power is obtained to get heavy loads moving quickly and to maintain high speeds in hilly country without excessive shifting. A 100-mile test run between Detroit and Saginaw is said to have been accomplished in high gear at an average speed of 33.3 m.p.h. and a gasoline consumption of 21 gal. when hauling a load of 21 tons.

Power Lessens Gear-Shifting

Minimum gasoline consumption is claimed because the two motors operate normally in the 1000-2250 r.p.m. range. By operating at less than half throttle, the inventor expects that the drive will provide 75,000-100,000 miles of service before motors are replaced at a cost of approximately \$200. Initial cost of \$3,000 is said to be approximately that of a 160-hp. diesel, without the extras involved in a diesel installation. Besides, the 190-hp. provided enables faster acceleration and lessened gear shifting, which in turn means closer relationship between motor miles and wheel miles.

It is claimed that with the Thorco Drive motor miles exceed wheel miles by 3% to 5%, whereas in hauling heavy loads by other systems the difference between motor miles and wheel miles may reach 20% to 25% as the result of dropping down through several gear ratios on hills.

The two motors used by Thornton are mounted behind the cab. The four driving wheels are placed in line, overall span being 96 in. and within state regulations. Dual equipment is used throughout—two batteries, two starters, two transmissions, two drive shafts, two

MULTIPLIED STRENGTH

for the **NEW**
Mr. Thirsty Fibre



TRADE MARK

NEW **Soft-Tuff** ScotTissue TOWELS ARE TOUGHER IN USE, YET AS SOFT AS EVER!

WHAT you want in a tissue towel is *softness*, combined with strength when saturated. Now, thanks to the Scott Duralose process, such a towel has been perfected. The new "Soft-Tuff" ScotTissue Towel is gentle to the touch—yet so tough it can be used up to saturation!

This extra strength means substantial savings. In economy tests, the new "Soft-Tuff" ScotTissue Towels have materially reduced previous ScotTissue Towel consumption.

The new "Soft-Tuff" ScotTissue Towels are now found in many great industrial plants, as well as thousands of offices, throughout the world. In fact, their use has increased approximately 40%! Let us demonstrate to you their unusual comfort and economy. Scott Paper Co., Chester, Pa.

Copy, 1940, Scott Paper Co. Trade Marks "ScotTissue," "Thirsty Fibre," "Duralose?" Reg. U. S. Pat. Off. Trade Mark "Soft-Tuff" Registration applied for.



Eliminate the Washroom

"Double Standard"

IN THE PLANT, workers appreciate these sanitary, individual towels. Since "Soft-Tuff" ScotTissue Towels are far tougher in use, one is enough . . . they cut waste.

IN THE OFFICE, executives enjoy the soft, luxurious quality of these new towels.

Moreover, they are designed to eliminate lint being left on the face or clothing—an important advantage.

The Scott Washroom Advisory Service can help you arrange washrooms comfortably, hygienically and economically. It will suggest ways to improve traffic conditions, reduce waste and increase good will. Write for details.



How to SPEED UP OVERHEAD CRANE SERVICE

—without excessive cost!



Install a new
high-speed trolley
on your old crane!

Perhaps that ponderous, slow-moving old crane in your shop is causing a bottleneck that is seriously delaying plant production. Yet, you hate to invest in a new crane for fear the present upswing may only be temporary. Then here's the answer to your problem.

You can step up production with a new high-speed trolley on your old crane. In most cases, the bridge speed on your old crane is adequate, but the hoisting speed and trolley travel are much too slow. A new, high-speed trolley will give you many of the benefits of a new crane, including greatly reduced maintenance, at only a fraction of its cost.

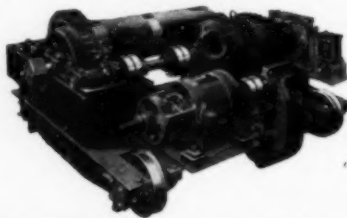
Built to Fit Any Crane

Whiting is equipped to build a trolley to fit any make of crane. It is not necessary that your crane be made by Whiting. Write for cost estimate.

Whiting trolleys and complete cranes are designed to operate smoothly and efficiently without undue wear. They have heavy-duty, anti-

friction roller bearings that keep all gears in permanent alignment. They have smooth-running, precision-cut herringbone gears that outlast ordinary spur gears at least two to one. Then too, they have flexible couplings that transmit motor power without binding, tapered-tread drive wheels, and many other features.

These cranes are built in capacities of 1 to 400 tons. Whiting Corporation, 15661 Lathrop Ave., Harvey, Illinois. In Canada: Whiting Corp. (Canada) Ltd., Toronto.



WHITING HIGH-SPEED TROLLEY

A new trolley of this type on your old crane will step up your overhead crane service, without an undue expenditure.

Builders of quality cranes for over 50 years

IT PAYS TO GET A QUOTATION ON

WHITING

OVERHEAD TRAVELING CRANES

differentials, and two sets of standard stub axles. Thornton has not infringed upon Ford engineering standards, and his rear-axle construction is 40% stronger because axles are shorter.

Motors are started separately. Both throttles are synchronized to one accelerator; one clutch pedal and one gear-lever are used to shift both transmissions simultaneously.

Instead of showing wheel speeds in miles per hour, the speedometer shows motor miles. Two indicators are supplied on the speedometer, one for each motor, and both must register alike. Engine tachometers provide a check of motor synchronization.

Elimination of dual wheels promotes better tire wear. Spacing of the differentially-driven wheels minimizes road shocks and excessive heating of tire carcasses. Each rear axle is independently sprung. The frame consists of two Ford truck frames riveted together.

Financing Your Plane

Giannini bank has credit plan for private purchases, and also lends tuition to student pilots.

EARLY THIS WEEK burly A. P. Giannini, chairman of the Bank of America, listened with satisfaction while his vice-president in charge of instalment loans, E. A. Mattison, gave him a report on the first week's business in the bank's latest venture—financing of private plane purchases. Some 55 contracts totaling about \$100,000 had been written.

Giannini's shrewd move to cultivate the booming aircraft industry as a business source is also progressing on another front—the loaning of tuition money to student pilots, engineers, and mechanics in California aviation schools.

Under the present sales setup in the aircraft industry, manufacturers have distributors who in turn have many pilot-instructors (known as "dealers") working for them on commission. While initial financing contracts are made through dealers, loan papers and payments are handled by the bank directly with distributors.

How New Venture Operates

A typical plane deal runs about as follows: Purchaser makes a down payment equal to one-third the sales price. The cash balance, up to \$3,000, is handled by the bank. For the service, the purchaser pays a financing charge of \$6 per \$100 per year. In addition, he pays for flight-and-ground-risk insurance at the rate of 11% of the sales price plus a "pro-rata" charge of 1% of the "net to be financed" as his share of the cost of a "master policy." This policy protects the bank against breaches of warranties and violation of restric-

tions imposed by the Civil Aeronautics Authority.

At present, financing is limited to purchase of the following planes: Stinson 105, Taylorcraft, Piper Cub, Luscombe, Ercoupe, Aeronca, Porterfield.

Dollar Lines Again?

San Francisco hears that family group may reacquire control from Maritime Commission.

FOR SEVERAL WEEKS the favorite topic for speculation along California Street, San Francisco's shipping row, has been who'll buy the American President Lines, Maritime Commission-owned successor to the Dollar Lines.

Last week, discussions by old-timers centered on a new and colorful possibility—that a group of San Franciscans headed by R. Stanley Dollar, son of the late Captain Robert Dollar, who pioneered the 'round-the-world service of A.P.L. without a subsidy, might reacquire control. It was reported that a proposition to that effect would be presented to the Maritime Commission before the end of the month. R. Stanley Dollar would neither confirm nor deny the report, but said a statement would be made if there was anything to announce.

Decision of the Dollar interests to reacquire the line, according to *Pacific Shipper*, a publication close to the Dollar group, may be attributed chiefly to "family pride in the institution established by the late Captain Robert Dollar and the family determination to remain an important factor in the shipping industry."

Three third-generation Dollars, sons of R. Stanley and J. Harold, have entered the Robert Dollar Co., holding unit for the Dollar operations. Since the Maritime Commission got control of the Dollar Lines (*BW*—Aug 27 '38, p. 23) the Robert Dollar Co. has been the largest preferred stockholder of the A.P.L.; also it is the largest minority stockholder in American Mail Line, of Seattle, which the Dollars formerly owned.

What a Buyer Must Have

Meanwhile, it has been known that the Maritime Commission wants to dispose of A.P.L., last of the government-controlled steamship operations, if it finds a "responsible" buyer. Qualifications appear to include: (1) ability to assume responsibility for the present A.P.L. indebtedness—something over \$12,000,000—and the future construction obligations for the trans-Pacific service—seven liners costing about \$14,000,000; (2) offering of a fair price; (3) a record of successful operations which would guarantee efficient functioning for national defense; (4) support of Pacific Coast business interests.

"I'm glad I don't work for your boss, Jane!"



HELEN: "... Seems you're stuck late almost every night!"

JANE: "But my boss can't help that. Late yesterday, for instance, we got an important price change, and a bulletin had to go out the same evening. That meant 100 copies to be typed."

HELEN: "Typed? No wonder you were stuck! In our office we handle jobs like such in half an hour or less. I just type one original and run off copies on the duplicator!"

WHEN YOU NEED a lot of copies in a hurry, get them the quick, easy, economical way—turn to your duplicator and to Hammermill Duplicator Paper.

HAMMERMILL DUPLICATOR PAPER gives you clear copies, and a lot of them, from either a gelatin or spirit machine. On the spirit duplicator it is an exceptional economizer of contact fluid. Users report that with the new Hammermill Master Paper it makes up to 300 readable copies.

YOU CAN GET Hammermill Duplicator Paper from your printer or stationer in white and six colors... also Hammermill Duplicator Bristol, a filing card weight. Send for Duplicator Kit which includes 100-sheet packet, test sheets of Hammermill Master Paper, a useful booklet, "Duplicator Facts," and the Operating Guide, a handy trouble-prevention chart to help you get better duplicator copies.

LOOK FOR THE WATERMARK

HAMMERMILL DUPLICATOR PAPER

MADE BY THE MAKERS OF HAMMERMILL BOND



Send for it!

Hammermill Paper Co., Dept. W, Erie, Pa.
Please send me free 100-sheet packet of Hammermill Duplicator including test sheets of Hammermill Master Paper, "Duplicator Facts," and Operating Guide. (Students & outside U.S., 50c.) BW 9-14

We operate a ☐ spirit-type, ☐ gelatin-type duplicator.

Name

Position

(Please attach coupon to, or write on your company letterhead)

MARKETING

ADVERTISING · MERCHANDISING · SELLING

Radio Booms, Summer or Not

Three hot months of 1940 beat three winter months of 1939. Seasonal ad slump mitigated by use of special discounts. Increase in listening also a factor.

ALL THROUGH the summer's sweltering heat, radio executives have been thinking of cool millions. Chain sales figures, now available through August, have put the chill on that old bugaboo, the summer slump. Similarly, radio listening by cash customers has held up as never before.

Consider these figures: In June, the four national networks—Columbia, Mutual, and National Broadcasting Co.'s Red and Blue—did a combined business 10% greater than in June, 1939; in July the improvement was 22%; and in August the gain was 17%. For the three-month period as a whole, the joint betterment was 16%.

That doesn't mean, of course, that summer is as good from a sales viewpoint as winter. For instance, the chains did 13% more business in blustery January, February, and March than they did in June, July, and August—both in 1939 and 1940. What it does mean is that radio, "the depression-proof adver-

tising medium," is booming as never before. As proof, there's the fact that sales in this year's three hot months were actually slightly ahead of those in the three cold months of last year. And since 1939 was a record year, there's no doubt that 1940 will set new tops.

Attack on the Doldrums

Fact is that the chains first stuck the knife in the summer slump in 1939. Nettled by more than a 50% drop in 1938's summer doldrums, Columbia last year adopted what it called a "summer hiatus policy." Purpose of the plan was twofold: to woo those customers who insist on summer vacations by allowing them a lay-off of from four to eight weeks, depending on the number of stations used for the programs; to encourage summer broadcasting by allowing extra discounts for 52 weeks of consecutive broadcasting.

NBC followed through with an "inter-

Summer Radio			
Network	Income from Time Sales		
Columbia			
	1940	1939	Change
June ...	\$3,144,213	\$2,860,180	+ 9.9%
July	3,067,870	2,331,953	+31.6%
Aug. ...	2,875,657	2,341,636	+22.8%
	9,087,740	7,533,769	+20.6%
NBC Red			
June ...	\$2,919,405	\$2,759,917	+ 5.8%
July	3,141,902	2,713,798	+15.8%
Aug. ...	3,072,338	2,737,926	+12.2%
	9,133,645	8,211,641	+11.2%
NBC Blue			
June ...	\$722,695	\$622,487	+16.1%
July	688,536	569,757	+20.8%
Aug. ...	665,924	574,644	+15.9%
	2,077,155	1,766,888	+17.6%
Mutual			
June ...	\$299,478	\$228,186	+31.2%
July	235,182	216,583	+ 8.6%
Aug. ...	227,865	205,410	+10.9%
	762,525	650,179	+17.3%

val plan," under which it guaranteed to hold spots for advertisers during vacations of from four to eight weeks only if the account paid 28% of the regular cost of the time. Thus, for the first time, NBC collected for time not actually used.

Prime reason, of course, why radio is booming is that it is still a growing advertising medium—and business in general is good. Radio executives, however, like to point to the startling increases in listening among customers, as shown by the studies of radio-research outfits, and to the fact that listeners don't turn from

Kansas City vs. Kansas City—to the Finish



The battle of the Kansas Cities over food terminal facilities still goes on. The winner, to date, seems to be the Kansas City, Mo., Terminal, where, on a recent afternoon, business was proceeding as usual (left)—while the Kansas City, Kan., Terminal was quiet enough to furnish an ideal spot for a confidential chat (right). Of all the produce men who moved into the new \$4,000,000 terminal last December, only one still remains.

The efforts of the Kansas City, Kan., terminal to



wean produce men away from the established terminal in Kansas City, Mo., landed it in legal hot water almost as soon as it opened. The last in a long line of legal decisions concerning these efforts was the granting of a permanent injunction, by a Kansas City, Mo., federal district court, which restrained the Kansas City, Kan. terminal from offering rent rebates to prospective tenants (BW—Jul 13 '40, p22). Kansas City, Kan., has now appealed the ruling.



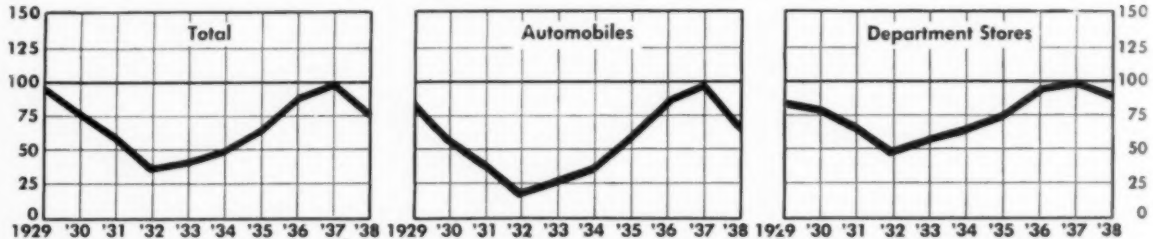
POUR IT PROUDLY from the original bottle — I.W. HARPER
• THE GOLD MEDAL WHISKEY

FACTS ABOUT INSTALMENT CREDIT—

Two-thirds of all instalment debt is for retail purchases. The other third is direct cash borrowing from commercial banks, personal finance companies, credit unions, etc., and as the figures show, the trend of this cash borrowing is distinctly up. (By far the largest single cause of instalment debt is the automobile, outstandings on which have ranged

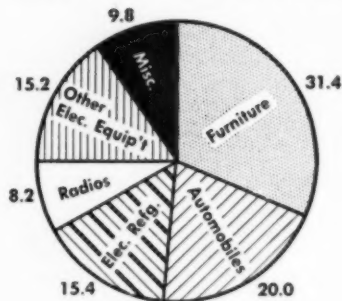
Retail instalment credit outstanding goes up and down with the business cycle

(Outstandings by type of retail sale — end of year, 1937 = 100)



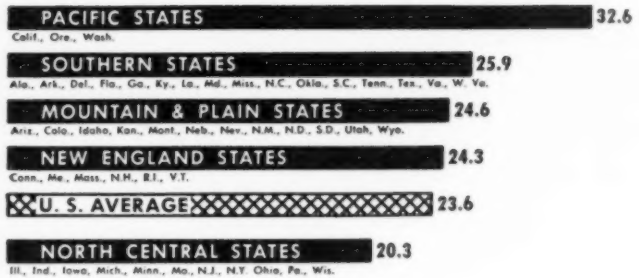
More families owe on furniture than on automobiles; refrigerators come next

(% of total instalment contracts by type of purchase)



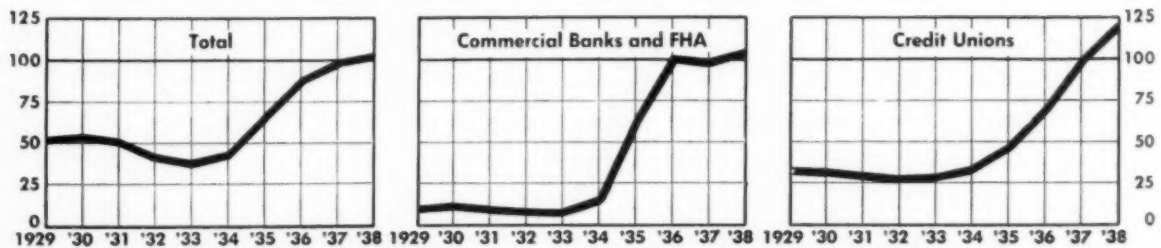
One out of three Pacific Coast families uses instalment credit

(% of families buying on time, by regions)



Growth of direct cash lending is a new and important trend in instalment credit

(Volume of direct cash loans outstanding — end of year, 1937 = 100)



Summary: End-of-the-year dollar totals by type of retail instalment credit outstanding

(in millions — 000,000 omitted)

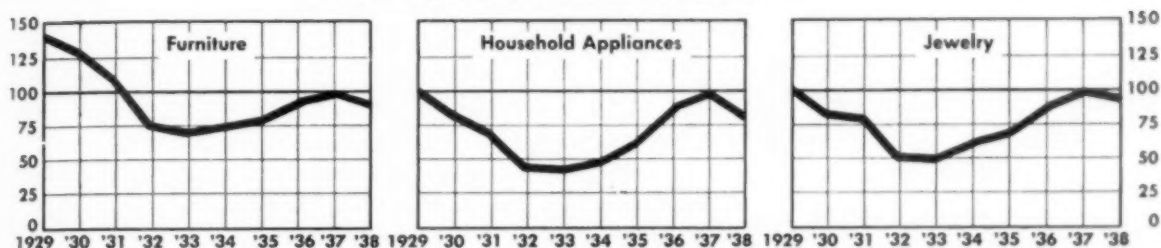
	Total Retail Credit	Automobiles	Department Stores	Furniture	Household Appliances	Jewelry	All Other Retail
1929	\$2,624.8	\$1,317.5	\$219.8	\$583.4	\$265.1	\$56.0	\$183.0
1930	2,127.3	928.3	209.7	538.9	222.2	47.1	181.1
1931	1,663.3	636.7	178.3	454.0	184.5	45.4	164.4
1932	1,035.6	321.7	129.5	313.4	121.3	29.8	119.9
1933	1,183.7	458.7	153.3	298.9	118.5	29.1	125.2
1934	1,363.6	575.4	172.5	313.6	131.2	35.3	135.6
1935	1,823.7	935.8	196.9	334.0	170.3	39.2	147.5
1936	2,446.6	1,349.6	245.4	389.8	237.3	49.9	174.6
1937	2,721.0	1,548.8	256.7	408.9	262.3	55.7	188.6
1938	2,187.5	1,108.6	233.3	382.6	222.5	53.1	187.4

—WHO USES IT; FOR WHAT; WHERE

from 25% to 42% of the total. Economically and geographically, the "representative" instalment credit family would shape up something like this: Income, between \$500 and \$2000 a year; Locality: on the Pacific Coast; Type of Community: a middle-sized city, in contradistinction to a farm community or a metropolis.

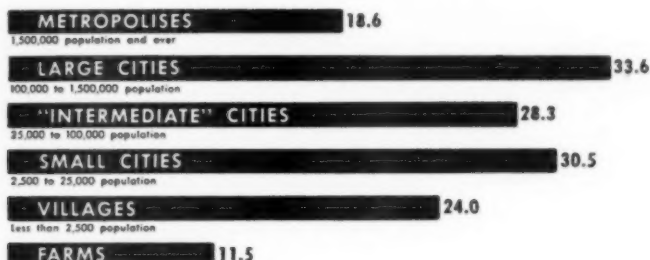
Retail instalment credit outstanding goes up and down with the business cycle

(Outstandings by type of retail sale — end of year, 1937 = 100)



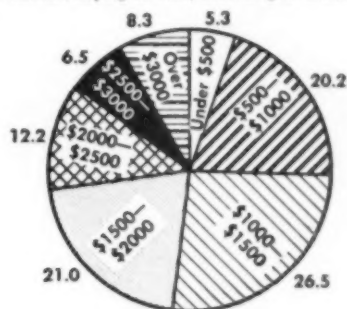
Families in cities use instalment credit most extensively

(% of families buying on time, according to size of community)



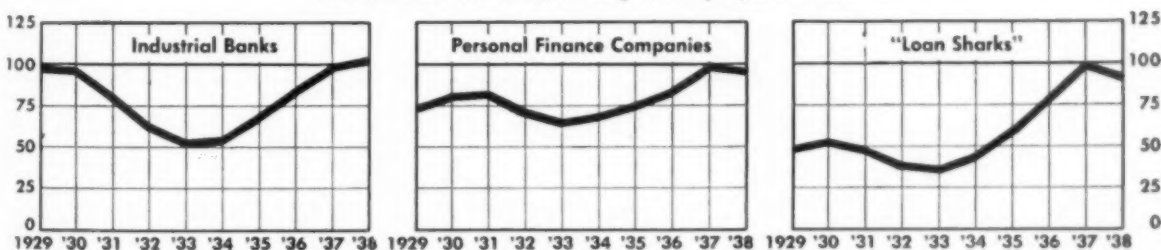
Time-purchasing is most common among lower- and middle-income families

(% of families buying on time, according to annual income)



Growth of direct cash lending is a new and important trend in instalment credit

(Volume of direct cash loans outstanding — end of year, 1937 = 100)



Summary: End-of-the-year dollar totals by type of cash-lending credit outstanding

(in millions — 000,000 omitted)

	Total Lending	Commercial Banks	FHA	Credit Unions	Industrial Banks	Personal Finance	"Loan Sharks"
1929	\$606.3	\$42.6		\$32.0	\$219.0	\$263.2	\$49.5
1930	634.4	45.1		31.0	217.9	287.1	53.3
1931	590.5	38.8		29.1	184.4	288.8	49.4
1932	497.5	31.0		26.9	143.1	256.6	39.9
1933	446.1	28.7		27.4	120.7	232.0	37.3
1934	509.9	38.6	22.9	32.2	125.4	245.5	45.3
1935	762.5	71.1	163.1	44.3	156.2	267.1	60.7
1936	1,005.4	130.2	236.7	66.0	191.3	301.0	80.2
1937	1,126.0	215.0	148.7	92.8	220.6	349.8	99.1
1938	1,167.7	248.0	137.8	113.0	230.0	346.0	92.9

Standardize on NEENAH for every type



STANDARDIZATION SPELLS EFFICIENCY

To promote efficiency in your office, buy paper as you do other materials. Standardization, in the purchase of paper assures you of uniform performance for your stenographers, bookkeepers and office machine operators; avoids the confusion of one hundred and one brands of paper and the resulting complaints of your office force. NEENAH papers are absolutely guaranteed to perform satisfactorily. Ask your printer to always use a NEENAH paper on your orders and free yourself from paper worries. There is a NEENAH paper for every office requirement.



GAINING PRESTIGE WITH YOUR CUSTOMERS

Your company letter reaches more customers than any other means of communication you use. It is of utmost importance to you that you gain the right impression with those who receive your letters. A good grade of paper in your letterhead is an extremely small factor in the cost of your business, but it can mean a great deal in creating customer goodwill. The use of good paper is a distinct compliment to your customers. It is just as important as the good appearance of your personal salesmen. There is a NEENAH paper to help you gain prestige.



PRESTIGE YOUR BUSINESS

Many records should be kept on paper, made of good paper. Other records should be kept on paper of at least a good grade. If you should use some of your records from today, they would be in good shape. Don't take chances. Use the NEENAH paper and be sure it is as necessary. The difference in cost is small, but the difference in quality is great.

Look for Neenah in the watermark



NEENAH FINE BUSINESS PAPERS

Paper Requirement



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KEEP HARMONY IN THE OFFICE

Paper can be a "fifth columnist" to the harmony in your office and cause a good deal of annoyance. Stenographers like paper that will stand up under erasure, take typing properly, and complement their efforts. Bookkeepers, as well, require ledger papers that will withstand quite a bit of handling and erasing. Furnishing your office force with cheap materials with which to work is false economy. Keep things running smoothly in your office by using a NEENAH paper guaranteed to perform satisfactorily in every respect.



GET GOOD PRINTING RESULTS

Good paper can greatly enhance the appearance of any printed job. A cheap paper will mar a pressman's craftsmanship. Neenah Paper Company has a printing expert on its staff, and the wide acceptance of these papers by printers, engravers and lithographers throughout the country gives testimony to the fine printing results that can be secured on NEENAH papers. Your printer, too, will be glad to recommend NEENAH papers for your use. He likes to use a good paper that will compliment his skill on the press.



IMPROVE ACCURACY FOR YOUR BOOKKEEPERS

Ledger papers on which you keep your customer accounts undergo rather severe handling and erasure. Papers that don't stand up under this wear and tear and do not erase properly are likely to cause errors and loss of time. NEENAH papers have a special sizing which permits erasure and legible rewriting. They also have a special surface for machine bookkeeping methods which increases the density of blackness and assures clarity of impressions. NEENAH ledger papers can improve the accuracy of your bookkeeping department and contribute to the efficiency of your force.



BOND PAPERS
OLD COUNCIL TREE BOND
100% Rag Content

SUCCESS BOND
75% Rag Content

CHIEFTAIN BOND
50% Rag Content

GLACIER BOND
25% Rag Content



TUDOR LEDGER
100% Rag Content

STONEWALL LEDGER
75% Rag Content

RESOLUTE LEDGER
50% Rag Content

PUTNAM LEDGER
25% Rag Content

NEENAH INDEX
25% Rag Content

NEENAH PAPER COMPANY

NEENAH, WISCONSIN

Manufacturers of Fine Rag Content Bonds, Ledgers, Index and Lightweights



HAVE YOU A COPY OF THE NEENAH PAPER GUIDE?

Send for your free copy today attaching this coupon to your business letterhead... The Neenah Paper Guide compactly charts the characteristics and uses of all grades of business papers. It fits any 8 1/2 x 11 file.

NEENAH PAPER COMPANY, NEENAH, WISCONSIN

Please send me the Neenah Paper Guide.

Name.....

Company.....

Address.....

(Please attach to your business letterhead)

N-8

Make your product as easy to find as this one!



Advertise your brand and local outlets in Telephone Directories

If a product has selective distribution, prospects may not know who sells it in their city. That's why a steadily growing number of firms are identifying their authorized representatives in the Classified Section—"yellow pages"—of Telephone Directories. They find that this helps reduce substitution and increase sales because...

"Where to Buy It" service quickly tells prospects, who may not know, where they can buy the advertised brand they want, as illustrated in the example above. Thus it makes local and national advertising more effective, particularly when the advertiser directs readers to look for the trade-mark heading in the Classified Section.

A Bell System representative will gladly give you details. Just call your local telephone office.



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their radios in summer as they once did. Best estimates are that summer listening this year was up 25% over 1939. Auto radios and portables get major credit.

Currently, chain-radio interest centers on two new policies NBC has adopted to hypo the sales of its Blue network, smaller of the company's two webs. For one thing, NBC has decided to take the advertising of proprietary products that previously have been unacceptable. Since time on NBC's Red network is ordinarily sold out, the move is expected to have effect only for the Blue.

Sale Made for Blue Web

Several proprietary manufacturers are reported to be angling for time, but thus far just one actual sale has been reported. Starting Oct. 17, the Lewis-Howe Medicine Co. will sponsor Tommy Dorsey's orchestra on the Blue, in a half-hour Friday evening program for Nature's Remedies.

Proprietary products have been more or less unwelcome on the national chains for the last four years. NBC and Columbia led in banning "broadcasting which describes repellently any internal bodily functions or matters not generally acceptable in social groups"—although advertisers already on the air were permitted to continue their contracts, and the weeding out has been gradual.

The earlier restrictions were simply matters of company policy, but last year (BW—Jul 22 '39, p.33) the National Association of Broadcasters formally adopted a code embodying similar restrictions.

In announcing its policy change, NBC said that "no accounts will be accepted unless they are in good standing with the Food & Drug Administration, and no programs will be accepted until continuities have been submitted in advance and those continuities conform to the strict requirements established for this type of product." Columbia and Mutual have indicated that the NBC action will have no effect on their own policies.

Aims at Audience-Building

Second change in NBC Blue policy permits the acceptance of five-minute sponsored news broadcasts—something that Columbia has done for more than a year, but which neither Mutual nor NBC Red has yet adopted.

The new policy will go into effect Sept. 30, with Nash sponsoring a news summary by John B. Kennedy from 9:30 to 9:35, Mondays through Saturdays. Kennedy will start the program on a sustaining basis two weeks before Nash begins paying for the time. Cost of the five-minute program is 25% of the half-hour rate.

NBC counts on the short news period to build up large listening audiences to attract advertisers to the 25-minute following periods—which are being made further attractive by a rate 30% off the half-hour price.



Modernization pays in the cooperative field, too. Central Consumers Cooperative, Cambridge, Mass., had

sales of \$350 a week before it remodeled its store. In this up-to-date establishment it averages \$2,300.

Co-ops Dressing Up

Stores that modernize on advice of Consumer Distribution Corp. find that it pays dividends.

TIME WAS when a co-operative grocery store was likely to occupy a made-over shed down a dead-end alley where rents were low and the atmosphere was not too pleasant for the family shopper. As a result, many of the stores folded quietly after a brief period in the red. Lately, the Consumer Distribution Corp.—non-profit organization established by the late Edward A. Filene to lend a helping hand to worthy consumer causes—has been teaching co-op groceries that a Main Street address and chromium trim will pay dividends. C.D.C. has also preached that the bigger the store (short of super-market dimensions), the bigger the trade, and has encouraged expansion and installation of self-service features.

Ringling Up Higher Sales

Proof of the pudding is in the sales figures of the 16-odd co-op groceries which have taken C.D.C.'s advice in the past 11 months. Latest convert is the Schenectady Consumers Cooperative, Inc., whose new food store, opened two weeks ago, is now ringling up sales of \$400 a day instead of \$800 a week. In Harrisburg, Pa., the local consumers co-operative, which completed modernization of its grocery store a month ago, has doubled sales volume and is getting ready to add a meat department. And the Central Consumers Cooperative of Cambridge, Mass., which has averaged a \$2,300-a-week sales volume since remodeling of its store was completed last December, will start enlarging within the next 30 days.

Leader among modern, self-service grocery co-operatives was the one in government-owned Greenbelt, Md., which was started with C.D.C. money back

in 1937 (BW—Feb 3 '40, p.35). The Greenbelt grocery's \$4,000 weekly sales volume induced C.D.C. to seek additional food stores. Finally, C.D.C. got together with Eastern Cooperative Wholesale and they drew up a plan for modernizing eastern food co-ops. Usual procedure is for C.D.C. to help expansion and modernization by matching the amount raised by the local co-op—on a loan basis. But in some cases the co-op furnishes all the money, and C.D.C. confines itself to advice and planning.

First cooperative to take advantage of C.D.C.'s offer was in Madison, N. J., where a modernized food store was opened last October. So far, the program has been confined to co-ops operating under the Eastern Cooperative Wholesale, but requests are now coming in from all over the country, and C.D.C. plans to take in stores in other sections as fast as funds permit. All requests for store modernization must first be approved by the cooperative wholesale in the regions in which the stores are located. C.D.C. has set up a department covering design and sale of approved store equipment to cooperatives.

Jitters over Nylon

Silk hosiery trade reports holdout retailers have finally begun to replenish their stocks.

WHEN NYLON STOCKINGS went on public sale for the first time last May, retailers and manufacturers, knowing that demand would far outrun supply, were not without misgivings. With only enough nylon available to make up about 5% of total production of women's full-fashioned stockings, they asked this question: "Will women turn thumbs down on silk stockings, if they can't get nylon when it goes on the market?"

These fears were apparently well-

grounded, for total shipments of women's full-fashioned hose were off 4.6% for the first six months of the year. The drop for June alone—first full month of nylon sales—was much sharper—13.3% under the same month in '39. In spite of a careful campaign, aimed especially at the women who thought that nylon combined the best qualities of steel and gossamer, it appeared that nylon was monopolizing far too much buyer enthusiasm.

This week, however, the hosiery trade took heart as the nylon stalemate seemed broken, at least temporarily. Shipments of all women's full-fashioned stockings were up 10% in July over the same period last year, though the increase dropped sharply to 0.7% with nylon counted out. July figures on department store hosiery sales indicated that demand was rising sharply, although retailers' stocks were lagging behind.

Busy Fall in Prospect

In part, this is the same situation that has prevailed in the whole soft-goods field for the past few months. Retailers with war jitters have kept stocks unusually low (*BW—Sep 7 '40, p. 13*). But hosiery manufacturers claim buyers have been holding out on them in hopes nylon production could be stepped up. Now, they say, most retailers are beginning to realize that, for the next six months at least, there won't be enough nylon to account for as much as 10% of total production—if that—and a buying rush is resulting. Outlook is for a busy fall season to make up for the slow orders last spring.

Proof that buyers are coming around is the jump in shipments for July. And a 25% increase over July of last year in hosiery production in the Philadelphia Reserve District (which accounts for almost the entire output of women's full-fashioned stockings) shows manufacturers believe the upward trend will continue.

To help retailers sell silk, manufacturers are now giving it unusually heavy

promotion. Typical of their efforts is the circular Gotham Silk Hosiery Co. has distributed to sales girls. This tells retailers frankly that they are suffering from "nylon jitters," pointing out how they can still sell silk. Probably most worried of all is the International Silk Guild, whose 1940 Silk Hosiery Merchandise News stresses such silk-stocking qualities as elasticity and absorbency.

Los Angeles Becomes Style Center

Built around sportswear, the coast garment industry plans campaign for wider recognition. Purchases at fall shows hit new highs, with record buyer attendance.

NEW YORK, due to France's enforced default, may have become the fashion center of the world (*BW—Aug 3 '40, p. 26*) but indications are that Los Angeles is laying plans to offer the metropolis some stiff competition, at least in certain lines of women's wear.

Plans are under way in the Coast city for making a strong bid (through increased advertising and publicity by garment manufacturers) to gain nationwide reputation as a style capital. The idea developed largely during recent fall fashion shows in Los Angeles and San Francisco when eastern buyers showed greatly increased interest in such Coast lines as Joyce's play shoes; the sportswear and accessories of Louella Ballerino, Margery Montgomery, and

Irene Bury; Violet Tatum's afternoon frocks; Patricia Perkins' evening dresses; Mab's foundation garments and bathing suits; the handloomed materials of Dorothy Wright Liebes (San Francisco); the swimming suits, playclothes, and girdles of the Jantzen Knitting Mills (Portland), and Gantner & Matern Co. (San Francisco).

The California ready-to-wear industry is independent of Hollywood. (Creations of movie designers are not generally obtainable in stores, although they do spur demand for particular styles.) Climate is what took the movies to California and the same factor has slowly but surely developed a fashion and apparel center there, too. Because California is a playground for residents as well as visitors, innumerable types of sportswear are required. That is why New York buyers now go to Los Angeles and San Francisco style shows to see what the well-dressed woman will wear for sports, just as they used to go to Paris to see formal garb.

West Coast Launches a Trend

The backbone of the industry's market is 500 department stores and specialty shops, scattered over the country. These stores maintain permanent California sportswear departments, and keep them stocked through resident buyers in Los Angeles. No other city except New York has exactly this kind of buying offices.

The Los Angeles apparel industry began to develop about 15 years ago, when clothes made in Eastern garment centers were found unsuitable to California outdoor life. A few manufacturers and designers styled more appropriate garments, added the color of California, and a new trend was born. Visitors went home, started a trickle of demand in their hometown stores.

At this point, the Los Angeles garment manufacturers organized a committee to attract resident buyers who knew what would sell in New York, Chicago, Des Moines, and Houston. The



Fittingly enough, sportswear and dude-ranch clothes featured the Fall Style Show, which drew 7,000 buyers, fashion critics, and apparel manufacturers into the Billy Rose Aquacade theater on Treasure Island in San Francisco last week. These models are showing clothes from Levi

Strauss & Co., San Francisco, whose business was founded on the manufacture of overalls and other work garments. Lately the company has gone into production of play clothes, and reports a large and growing demand from Eastern buyers for cow-girl and cowboy outfits.



Let me tell you something about *Preparedness*

RAILROADS may look about the same to you as they did at the time of the last World War, but any railroad man can tell you a lot of things have happened, a lot of improvements have been made to give America far better railroads today than it had then.

Here are two quick facts that size up the situation:

Freight train speed today averages nearly two-thirds faster.

And freight trains perform more than twice as much transportation service per hour as freight trains did then.

Behind these records are years of planning and hard work on the part of the railroads.

They've increased sidetrack mileage. They've enlarged terminal facilities. They've speeded up the handling of freight through yards. They've developed a vastly improved method of having cars on hand wherever and whenever they are needed. Their freight cars and locomotives are bigger and

better than they were 20 years ago.

And they've met test after test without car shortage or delay.

From August to October, 1939, for example, the largest increase in business ever recorded in so short a period was handled so smoothly that most people never heard about it.

And they've got 50,000 more serviceable freight cars now than they had then.

All of which adds up to this simple fact—

In speed and operating efficiency the American railroads are at the highest peak in their history.

That's mighty good news for every American who wants to see this country of ours prepared to meet any emergency — because no other form of transportation can do the job that the railroads do.

They've certainly proved their ability to handle their job. To keep up the good work, and to do an even better job, all they need is a fair and equal treatment with other forms of transportation.

"See America"
FOR \$90

Start from your home town now on a Grand Circle Tour of the United States—east coast, west coast, border to border—go by one route, return by another—liberal stopovers—for \$90 railroad fare in coaches—\$135 in Pullmans (plus \$45 for one or two passengers in a lower berth).

NOW—TRAVEL ON CREDIT
See your local ticket agent

ASSOCIATION OF
AMERICAN RAILROADS

WASHINGTON, D. C.



TO THE EXECUTIVES OF COMPANIES WITH MORE THAN 20 EMPLOYEES

IN a very small company this problem seldom arises. But if your business or plant requires any number of people—say 20 or more, you must have given not a little thought to the question of employee loans. You know that most workers have at some time unusual expenses which they can't meet out of savings or current income. They must borrow or fall behind. And the employee worried by unpaid bills finds it hard to keep his mind on his job.

Credit for wage workers

Students of social problems have long recognized the need of a legitimate source of credit for wage-workers—a place where small borrowers without bargaining power can obtain loans at reasonable cost and under state regulation.

Terms the worker can meet

To supply this credit is the job of the modern family finance company like Household Finance. At Household Finance the responsible worker can borrow up to \$300 largely on character and earning ability. No endorser or bankable security is needed. No wage assignment is taken. In a simple, private transaction the worker obtains what he needs to meet the emergency.

Repayment of the loan is made in small monthly installments. Thus the borrower can get out of debt without sacrifice. Below are some typical loan plans. Charges are made at the rate of 2½% per month (less in many territories on larger loans). These charges are substantially below the maximum allowed by the Small Loan Laws of most states.

AMOUNT OF CASH LOAN	AMOUNT PAID BACK EACH MONTH Including All Charges				
	2 mos. loan	6 mos. loan	12 mos. loan	16 mos. loan	20 mos. loan
\$ 20	\$ 10.38	\$ 3.63	\$ 1.95		
50	25.94	9.08	4.87		
100	51.88	18.15	9.75	\$ 7.66	\$ 6.41
150	77.82	27.23	14.62	11.49	9.62
200	103.77	36.31	19.50	15.32	12.83
250	129.71	45.39	24.37	19.15	16.04
300	155.65	54.46	29.25	22.98	19.24

Above payments figured at 2½% per month and based on prompt payment are in effect in Maryland and several other states. Due to local conditions, rates elsewhere vary slightly.

To help borrowers—and others—avoid unnecessary debt Household teaches and encourages families to spend wisely and buy intelligently. Thousands have learned from Household's booklets on money management and better buymanship to stretch their incomes. Schools and colleges make constant use of this material.

Why don't you send the coupon for further information? You will incur no obligation.

HOUSEHOLD FINANCE

Corporation

Headquarters: 919 N. Michigan Ave., Chicago
One of America's leading family finance organizations, with 282 branches in 184 cities

HOUSEHOLD FINANCE CORPORATION, Dept. BW-I
919 N. Michigan Ave., Chicago, Ill.

Please tell me more about your loan service for wage earners—without obligation.

Name.....

Address.....

City.....State.....

first buying office was opened about eight years ago by a professional buyer serving client stores for a monthly fee—which he had to earn by discovering saleable merchandise.

Today, there are 16 buying offices in Los Angeles. Three types are distinguishable: (1) the free-lance buyer, charging a monthly fee to each store served; (2) the group office maintained by a number of stores in different cities to supply them with California apparel; (3) the office maintained by a group of stores operating under a holding corporation. Besides apparel, these buyers purchase sports accessories, novelties, general merchandise. This setup is the real strength of the Los Angeles industry; leaders say the full peak of demand has still to be reached. The recent fall style shows in Los Angeles attracted a record number of buyers from distant points, and

purchases were larger than in any previous season.

The January style show is most representative of California trends, because then the New York and Chicago buyer can see summer wear, already available to California with its milder climate, and orders can be placed for apparel that will be selling in Eastern and Northern cities in May and June.

Incidentally, there is said to be a definite California trend in men's wear. In San Francisco or Los Angeles, the business man may step from his office and motor to a mine or desert factory, making the last lap of his journey on horseback. This calls for special clothes, adapted to roughing it, yet not too informal for the business district. This trend is particularly strong in haberdashery, and the movies are reputedly an influence in sales.

Music Piped to Apartment Houses

Muzak Corp. will serve homes as well as cafés in New York. Company and franchise-holders now supplying some 1,000 outlets. More cities will be included.

BACK IN 1936, New Yorkers were surprised to hear soft, slow music seeping out of the walls of some of their favorite bars and restaurants. The music, released from concealed wall outlets, was piped in over telephone wires from the offices of Muzak Corporation. Today, "Music by Muzak" is installed in some 600 locations in the New York Metropolitan area and has spread to nine other Eastern and Midwestern cities. And this week Muzak's service is being made available in Philadelphia for the first time. St. Louis and Los Angeles may be next.

Observers are more interested, however, in a new type of service Muzak is now providing in Manhattan apartment houses. Music is piped in over telephone wires, as in regular installations, but an "injector box," connected with the master aerial, changes waves from audio to radio frequency, making it possible for tenants to get Muzak's regular program 17½ hours a day by turning their radio dials to 550 kilocycles—dead spot on radios in the New York City area.

Green, Red, Purple Networks

Injector service costs apartment-house operators anywhere from \$25 a month up, depending on the difficulty of installation. Tenants pay nothing (except, perhaps, higher rents). So far some 60 apartment houses are using the injector service, and the number dangling it as bait in advertising is a good indication that the idea is catching on.

Muzak calls this apartment service its "Green Network." The basic audio fre-

quency network supplying the music is designated as the "Purple." For the past year and a half Muzak also has had a "Red Network," serving bars and grills unable to afford the Purple. Overhead is cut by using small cabinets instead of elaborate wall installations, and recently Muzak for the first time has permitted advertising. Red patrons pay only \$15 a month, in contrast to the \$35 and up charged Purple users. Advertising, limited to 15 seconds every 15 minutes, has been mainly by liquor companies.

Wedding Tunes in Demand

Muzak programs are held to a rigid schedule—11 minutes of music, three minutes of silence from 10 a.m. to 3:30 a.m. Various assortments of light music are played until three in the afternoon. Congas and rhumbas, permitted at cocktail time, give way to Viennese waltzes during dinner. There are no dance arrangements until 9:30 in the evening, and no vocals before 11. Muzak believes its music should serve only as gentle background and to give this effect all records are played at a standard 33½ r.p.m. in contrast to 78 for the regular home record.

All Muzak networks get the same program, although broadcasts of major sports events are occasionally switched on the Red, but patrons with direct wires on the Purple may request special selections. Most frequently demanded: the wedding sequence (Lohengrin, Mendelssohn, plus a couple of melodies on the order of "I Love You Truly") and "Happy Birthday." The latter is played

FAMILIAR ACTS THAT MARK A BETTER WAY OF LIVING



You reach
for the
Phone
or tilt
this
frosty Bottle



You probably never wonder how that telephone, practically at your elbow, got where it is. But it means a lot to you to have it there. And as for the ice-cold Coca-Cola you enjoyed today, or will enjoy tomorrow, you never stop to think how Coca-Cola happens to be never far from where you are,—around the corner from anywhere.

It could never have come about if Coca-Cola had not been pure, wholesome, delicious refreshment. For Coca-Cola was perfected to be just two things;—"delicious and refreshing." It takes skill to produce Coca-Cola,—the finished art of a lifetime of practice. Because it *has* quality, you and millions drink it and relish it.

And because of these things you find Coca-Cola, ice-cold, at more than 100,000 soda fountains and at over a million other retail outlets. Because of them you see the trade-mark "Coca-Cola" on familiar red coolers, cartons, trucks, bottles and fountain glasses everywhere. Your acceptance of this pure, wholesome beverage made ice-cold Coca-Cola the drink everybody knows.



Your desire for its quality
and years of work have made Coca-Cola
the drink everybody knows... and have made
the pause that refreshes
America's favorite moment.

COPYRIGHT 1940, THE COCA-COLA COMPANY

Bookkeepers for Trolley Cars and Cabs



For any transportation company operating a large fleet of trolley cars or taxicabs, it's important to reduce natural human errors to an absolute minimum. So, trolley cars have fare registers . . . and taxicabs usually have meters.

Contributing much to the accuracy and dependability of both are electrical contacts made by Mallory. Tiny as some of these contacts are, they must afford a ruggedness and length of life that would amaze a layman.

But those who know Mallory know also that Mallory's ceaseless metallurgical research in the field of powdered metals and hardened copper has led to developments that have set new high standards of performance in every application where the operation of a device or a machine depends upon making and breaking an electrical circuit.

P. R. MALLORY & CO., Inc.
INDIANAPOLIS INDIANA
Cable Address—Pelmallo

P. R. MALLORY & CO. Inc.
MALLORY
PARTS FOR RADIO, ELECTRICAL,
AUTOMOTIVE AND INDUSTRIAL FIELDS

an average of five times a day—all-time high was 34. The wedding sequence was requested 27 times in one day last June. Most special wires connect with hotels and restaurants, which keep them in addition to the regular program to serve private parties. There are a few individual patrons. Right now business in Manhattan is pretty slow, but beginning with the end of this month Muzak will make installations at the rate of one a day. Regular programs have been interrupted only for the President and Winston Churchill, though Muzak plans to give election returns this November.

Thousands of Selections

Recordings are made on long-wearing Vinylite by Associated Music Publishers, holding company for Muzak. Vertical transcription gives a range of 30 to 10,000 frequency cycles, against 40 to 5,000 reproduced by the lateral method used on ordinary home records. Most recordings are made by little-known orchestras, whose playing is particularly adapted to Muzak's requirements. When a well-known orchestra, use of whose name is assigned to one of the big record houses, records for Muzak, an alias is used. Muzak now has around 7,000 selections and is adding at the rate of one a day.

Idea for Muzak came from Maj. Gen. George O. Squires of the U.S. Signal Corps, who in 1923 experimented on

Staten Island with the transmission of sound over electric light wires. General Squires' plan began operation in Cleveland as Wired Radio in 1930, and Muzak was set up as the sales organization. Later, electric light wires, which ran into difficulties with ultra violet and other apparatus, were abandoned for telephone connections, and in 1936 Muzak moved to New York, after buying out an outfit known as Wired Music already operating there.

Most of the money behind Muzak has come from the North American Power Co., which has looked to a far-distant but rosy future when wired-music customers will use a lot of electricity. Another stockholder is Warner Bros., which bought in for around 40% worth some three years ago (*BW—Dec 25 '37, p. 34*). Waddill Catchings, Warner Brothers director, is president of Muzak and an individual stockholder.

Grants Local Franchises

Muzak has confined itself to the New York City area, expanding to other cities by granting franchises to local interests. Cost of a franchise is 10% of annual gross, which entitles the holder to use of Muzak's facilities, including the record library. In addition to this there is an initial investment amounting to around \$15,000.

Right now Muzak franchise holders are operating in Boston, Buffalo, Cleveland, Detroit, Miami and Miami Beach, Newark and Patterson, N. J., and Washington, D. C. And Muzak and its franchise-holders together are supplying some 1,000 outlets with music by wire.

In the second largest U. S. city—Chicago—Muzak's service is conspicuously lacking. Reason for this undoubtedly is that Chicago is the home port of James C. Petrillo, president of the American Federation of Musicians, and long-time foe of any form of canned music. In New York and other cities, Muzak and its franchise holders have signed agreements with A.F.M. locals, guaranteeing not to sell its services in restaurants where its installation would mean dismissal of musicians or reduction in their playing time. Despite these guarantees, musicians are not too happy about Muzak's growth, for the company pays only the union scale on its recording rather than the higher rates which many bands command in playing radio, record, or public dates.

Fat Years in the Long View

So far Muzak has been pretty much a losing proposition financially. The company has shown an operating profit only since last January, and estimates are that it will be 10 years yet before there's any decent return on the \$5,000,000 investment it represents. But officials, who believe Muzak is only beginning to hit its stride, are taking a long-term view and looking for fat years ahead.



NEW TRI-GUARD WAY
Guides support, as well as index, contents of drawer. Correspondence and papers are easily found or filed.



Tri-Guard guides slide on three rods which act as a "away-check" . . . contents cannot slump and indexing is always visible.

...HE REALLY "GOT TOLD"...

The "umpteenth" time the boss bawled out the office girl because she couldn't find some papers was once too often. He really "got told" about that "miserable old file and out-of-date system we have to use."

So-o-o-o . . . he installed Globe-Wernicke Tri-Guard files and the Safeguard filing plan, which makes it easy for anyone to file or find. Go to our local dealer who will welcome an opportunity to show you how this equipment and system will save work, time and money . . . or write direct to us for information.

The Globe-Wernicke Co. . . CINCINNATI, O.

Opposes 4/5 Pint

Alcohol Tax Unit official proposes that distillers offer a low-proof half-pint instead.

WITH SCHENLEY INTERESTS working up an argument for the 4/5-pint bottle for domestic whisky (*BW*—Sept 7 '40, p. 44), Stewart Berkshire, Alcohol Tax Unit commissioner, last week reaffirmed his opposition to that bottle size at the convention of the National Alcoholic Beverage Control Association (monopoly-state officials). Declaring that the 4/5-pint would deceive consumers and would not enable legitimate distillers to meet illicit competition—not being cheap enough—Berkshire remarked that “the answer to the question is not to authorize the reduction in bottle sizes every time it becomes necessary to increase the tax rate.”

Berkshire proposed instead that distillers offer “a half-pint of palatable low-proof spirits on a competitive basis with the bootleg product.” However, present federal regulations prohibit whisky below 80 proof (40% pure alcohol). Furthermore, all states tax whisky as though it were 100 proof (50% alcohol), regardless of its alcohol-bottled proof—generally 90 at present—and many states (most recently New York) prohibit half-pints as a temperance measure.

The commissioner advocates changing the federal regulations to permit whisky down to 60 proof (strong cocktail strength) and advises the states to levy taxes according to proof, thus encouraging low-proof spirits instead of penalizing them tax-wise.

Local vs. National

NATIONAL ADVERTISERS, who have never taken too happily to the gap between local and national newspaper advertising rates, were not much cheered last week by the report from the Association of National Advertisers' latest study of the local-national rate differential.

The report showed that, for the 494 metropolitan papers studied, the differential had widened by 1.4% since 1938. Increase was not as great, however, as that for the 1937-1938 period, when the differential jumped 2.6%. The A.N.A.'s survey shows the present differential to be 42.4% on the 5,000-line rate; 47.6% on the 10,000-line rate; 52.7% on the 20,000-line rate; and 60.5% on the 50,000-line rate.

Drug “Institute” Rumored

MORE THAN 100 COMPANIES, out of 300 that were originally invited to join, have now registered their reactions to the *McCall's*-sponsored **Institute of Standards** (*BW*—Sept 7 '40, p. 40). More than 60 have indicated that they are in sympathy with the plan, although *McCall's*

MONARCHS of the SEA are built at better Profit

No matter what the ultimate use of the product you make, if it involves metal cutting, Disston *Di-Mol* Hack Saw Blades can play an important role. For *Di-Mol* Blades have the stamina to meet trying feeds and speeds developed in machine sawing; need no codling in the hands of shop men.

And Disston *High Speed Steel* Hack Saw Blades will cut with greatest efficiency on the newest alloys or metals of extreme hardness.

Take advantage of the services offered by your distributor of Disston Hack Saw Blades. Henry Disston & Sons, Inc., Philadelphia, U. S. A.



DISSTON HAS THE EDGE

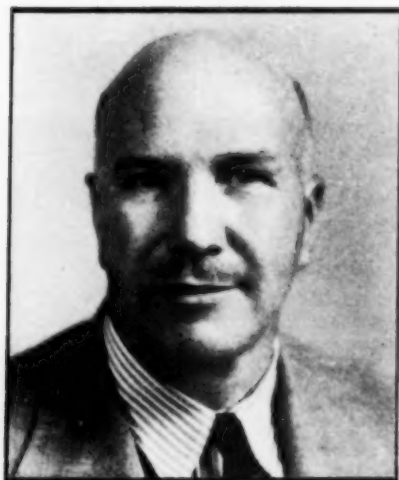
is still adhering to its policy of not releasing the names of manufacturers, to avoid any implication that early participants may be used as "bait" to get more members. Meanwhile, there are rumors that one of the big proprietary manufacturers is working up an organization similar to the Institute. According to present plans, the Institute will steer clear of consumer standards for drugs, tobacco, or liquor. The rumored organization, which will probably take form in a month if at all, will be intended to fill the gap left by the Institute in the drug field.

Course for Fur Sellers

WHEN MRS. AVERAGE CUSTOMER walks into her favorite department store to negotiate the purchase of a fur coat, she wants her money's worth in technical information. Realizing that fur-selling is often handled by regular salesgirls, without benefit of special training, the Associated Fur Coat & Trimming Manufacturers, Inc., this week conducted a six-day educational course for retailers. The course got off to a good start Monday with the origin and breeding habits of the muskrat. It winds up today with a bang-up fashion show at the New York World's Fair.

The association's aim is to encourage retailers to establish fur consultant services, similar to the special departments most stores have for brides and college girls. So far some 100 stores have indicated a desire to cooperate by sending representatives to training sessions.

Industry's Man



Nathanael H. Engle, assistant director of the Bureau of Foreign & Domestic Commerce, has now resigned that job to become industry's representative in the office of Harriet Elliott, the member of the Defense Advisory Commission who looks out for the consumer.

LABOR & MANAGEMENT

INDUSTRIAL RELATIONS · PERSONNEL · EXECUTIVE POLICY

Marshall Field Stabilizes Jobs

Store's registration—by which extras are classified according to experience, aptitude, amount of part-time work desired—helps solve peak-load labor problems.

THE OTHER DAY Marshall Field & Co. held a sale that required a peak force of extra employees. Thereby the store obtained its first measurement of how effective has been its effort to revamp its contingent force. Previously, it had been usual to call a substantially larger number of extras than was actually needed, allowing for shrinkage in response. The contingent force manager deliberately reduced his safety margin on this call to a very small percentage. Next morning a few more people reported than were actually required.

This result encouraged the operating and personnel departments to feel that they are on the trail of methods which will prove profitable to the company and benefit the employees. Field's is seriously seeking ways to stabilize jobs for its regular employees despite the inherently seasonal nature of retail merchandising. It has currently under test a half dozen or more plans intended to give year-round work to more of its people. Applying to the extras some ideas originally developed for full-timers is what raised the response to the peak-force extra call the other day.

During the past Christmas season, the personnel department analyzed extras' results, recalled for interviewing the most promising individuals. These people were then registered according to their preferences as regular, spasmodic, or peak extras. This means respectively those who wish three days a week to full-time work, or from one to three days, or only an occasional pin-money job.

Dealing with Pin-Money Seekers

Pin-money seekers are essential to an extra list for highest peak days, but they also make a real problem. At Christmas, they uniformly want as many days as they can get, at other times they are hard to bring in. Field's announced that the extra who works most often during the year will be brought in first for Christmas. Each of the pin-money extras was given a tentative schedule of expected peaks for 1940 and was urged to keep her time clear for these. Hence the gratifyingly heavy percentage that reported the other morning.

The new method for handling regular

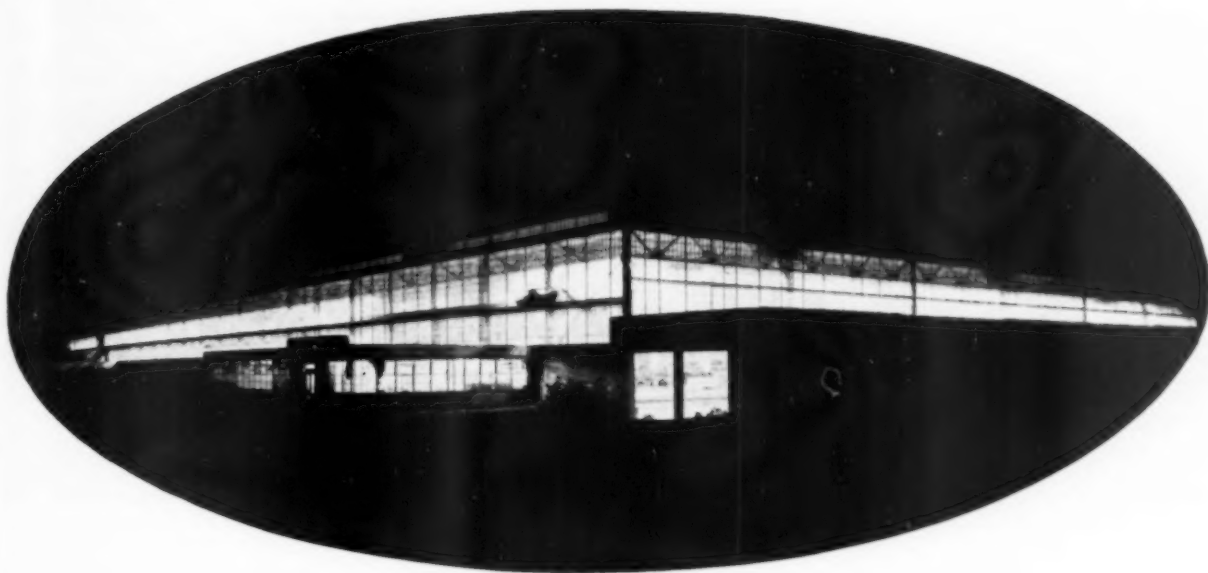
and spasmodic extras is to register them according to experience and aptitudes, attempt to qualify them to fill more places and consequently receive more calls. Likewise, to convert regular extras to full time as rapidly as possible, meanwhile working the best of the spasmodics into the regular extra class.

Already the employment department is beginning to find that the detailed registration of regular extras' experience has made the contingent list the chief source of full-time material. No requisition for permanent personnel is now filled until the extra list has been exhausted. In the first half of 1940, 23% more jobs were filled from this list than in the first half of 1939. Most of the salespeople, cashiers, inspectors, and other department-store jobs were filled from this source; principal exceptions were restaurant and kitchen help. The list of qualifications of extras recently produced for sudden vacancies a skilled teletype operator and a Bell-experienced switchboard operator. Both were eager to get back into these specialist jobs in the store.

Trained for Flexibility

Regular and spasmodic extras have since Christmas been trained to broaden their abilities. Of this year's Easter-season extras, 250 had previously successfully sold housewares and other miscellany at Christmas, and had meanwhile been trained for such Easter specialties as apparel and accessories. Right after Easter many of these extras were trained for late spring busy seasons, thus kept on working.

General goals are: adequate incomes for a more concentrated group of top-quality regulars and spasmodics, with maximum flexibility in this group; and, maximum year-round availability from peak extras. All extras are to be reinterviewed three or four times a year. The closer they can be tied into the organization by larger annual earnings and more frequent calls, the better the response and the fresher their skills. Also, the lower the employment and training expense, and the fewer the claims for unemployment compensation against Marshall Field's experience rating account.



THE REASONS WHY Industry Prospers in Illinois



The unique position occupied by Illinois in the industrial map of the Nation, gives distinct advantages to manufacturers located in this State which are reflected in the consistent prosperity of the many and varied industries engaged in business in Illinois.

Illinois is the leading industrial State west of the Alleghany Mountains, and occupies the same high rank in agriculture, and in oil and bituminous coal production, as it does in industry. The combination of rich natural resources, strategic central location, and the aggressive pioneering spirit of its citizens raised Illinois from a frontier agricultural State to the third State in the Nation in industrial production in less than a century. That combination still operates to the benefit of industries located in Illinois, and presents an unusual opportunity to business men contemplating the establishment of a new enterprise or a branch plant. Investigate the advantages of an Illinois location for your business.

Special Confidential Report for Executives

Write the Illinois Development Council, at Springfield, today for a special report on the advantages of Illinois as they apply to your business. This report will present the facts on labor, raw materials, available plant sites, power, fuel, water, taxes, markets, distribution facilities and other factors in the profitable conduct of a business or manufacturing enterprise.

ILLINOIS DEVELOPMENT COUNCIL
STATE HOUSE • SPRINGFIELD, ILLINOIS

ILLINOIS FACTS

MARKETS Illinois has direct transportation facilities to every part of the Nation, and is the center of the huge Middle West Market, with 50,000,000 population within overnight shipping radius.

EQUIPMENT Illinois is the second largest metal-working State of the Nation, assuring manufacturers located here of adequate stocks and rapid deliveries of machines, tools, and parts.

LABOR A large labor supply, noted for its stability and harmonious relations with employers, and skilled in a wide variety of trades and professions.

POWER Power facilities ample for today's needs and geared to tomorrow's requirements, serve all of Illinois in a vast interlocking system.

TRANSPORTATION Illinois is the hub of rail and air transportation, and has the finest highway system in the Nation. Many important manufacturing centers are served by both the Lakes-to-the-Gulf Waterway, and the Great Lakes-St. Lawrence Waterway.

FUEL Illinois is the third State in the Union in bituminous coal production and third in oil production, assuring ample fuel supplies at low transportation cost.

WATER Abundant water supplies are available from eight great drainage basins in Illinois. Analyses showing flow of surface waters, underground supplies, and mineral content of water for any locality can be obtained on request.

ILLINOIS
THE STATE OF BALANCED ADVANTAGES

AIRING NEW MARKETS

How a remarkable new air filter helped broaden the sales opportunities of air conditioning and how it may help your business

ONLY TEN OR SO YEARS AGO, a certain movie audience trickled out from the second show.

There was a buzz of conversation. But not so much about the picture as about something really new in the world... something they were experiencing for the first time—air conditioning.

Soon movie audiences in other big cities got acquainted with the novelty of cool, filtered air. Then a few stores tried it. A few offices... and even a few scientific laboratories.

In these proving grounds the air-con-

ditioning industry found out that...

... cool, filtered air was a highly *saleable* commodity which—to be *widely* sold—of course had to be inexpensive.

So the industry attacked the problem of extending the benefits of air conditioning... to retail shops... to neighborhood movies... to trains, restaurants, hotels. Even to homes.

Is the industry solving the problem? Its remarkable growth in ten short years shows that it is. And what is the result today? Simply this: Today more and more people in this country enjoy the bene-

fits of cool, filtered air—*economically!*

Now, in broadening its market, air conditioning had a helper—a new kind of air filter... the first inexpensive, highly efficient air filter on the market. It came in small, easy-to-get units. Was replaceable. And did the work of the bulky, costly, filtering machines.

Yes, the economy of this new filter was truly remarkable—so remarkable that it brought clean air to still *another* market.

This time it brought clean, *warm* air to the thousands and thousands of people



Ask people like these, or travellers on buses, or mothers on trans-continental low-fare trains, and they'll sell you on air-conditioning's

progressive outlook. For clean, filtered air is reaching new markets and winning more good will every day.

who heat their homes with forced warm-air furnaces. Before this new filter came along, these people got economical and efficient heat. But it was dirty. This new filter cleaned up this warm-air heating. And today forced warm-air furnaces do the 3-way job of heating, humidifying, and circulating filtered air in winter and provide clean, moving air in summer.

THIS NEW FILTER is called Fiberglas* Dust-Stop* Air Filter. Its birth is bound up with the discovery of a strange and fascinating basic material...

...a basic material which is actually glass... glass which you can bend, twist, tie, weave... glass which is springy, comes in soft mats of many criss-cross fibers, like an armload of sheep's wool... glass in short which makes an ideal sieve for catching most dust and as much as 96 per cent of all "hay fever" pollens in the air. Glass now known to industry as *Fiberglas*.

You've probably heard of Fiberglas,



Famous Fifth Avenue store, Lord & Taylor, state: "There is a definite and tangible saving in the soiling of gowns, hats, coats, and silks and we know this saving results from clean air. We have used Dust-Stop Air Filters in our air-conditioning units since the beginning."

Mr. Manufacturer, but you've probably never stopped to realize what Fiberglas in the form of Dust-Stop Air Filters could do for your business. *Here are some examples:*

Perhaps you have in your plant the problem of dust or oil-charged particles of lint, steel, flour, or coal which fill the air and form an explosion hazard. Hospitals once had the same problem. Now they deliver clean, filtered air to their operating rooms through Dust-Stops. The problem is solved. And *economically!*

Or take the case of paint-spray rooms in automobile factories. Here Dust-Stops cut refinishing costs and save man-hours by helping prevent dust particles from settling and marring newly sprayed bodies and fenders.

Spores no longer get into beer and spoil its flavor. Dust-Stops strain them out at the brewery. An unusual problem, yes—yet spores are a *common* problem in other beverage plants. Why not install Dust-Stops in your soft-drink factory? ... *Economically!*

ONE OF AMERICA'S largest heavy industries tested its office force for output, morale, and health in air-conditioned rooms. The improvement was so great that the industry air-conditioned an *entire* building. And got *economical upkeep with Dust-Stops!*

Now, you may have a product whose manufacture could be cheapened by filtered air. You may have a place of business where air conditioning would create more "store traffic." Or where the working output of large groups would be improved.

In any case, investigate this subject and the money-saving which Dust-Stop Air Filters can give you. Write us! Owens-Corning Fiberglas Corporation, Toledo, Ohio. In Canada, Fiberglas Canada, Ltd., Oshawa, Ontario.

See Fiberglas made: Glass Center, New York World's Fair, 1940.

Copy, 1940, Owens-Corning Fiberglas Corp.

OWENS-CORNING

FIBERGLAS

©T. M. Reg. U. S. Pat. Off.



The lady of the house will find that she need do her general housekeeping much less frequently with Dust-Stop Air Filters in the forced warm-air furnace. Almost overnight, Dust-Stops helped change warm-air heating from a dirt-stricken, outmoded industry into an up-and-coming one.



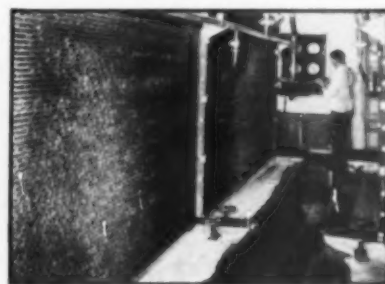
Hospitals recognize the potential hazard of even a few particles of dust becoming electrostatically charged in an operating room. They guard against this possible happenstance with clean, correctly humidified air. Dust-Stops do the cleaning job.



Casey Jones would have been amazed at such new-fangled devices as air filters in a railroad train. And even more so in a railroad station. Yet, here they are in the Cincinnati Union Terminal. Here passengers wait for trains in clean comfort.



Hay fever sufferers find relief—and hotels profit—from air-conditioned bedrooms where Dust-Stops take out nearly all pollens. Homes, too, can be virtually pollen-free through unit air conditioners or window ventilators equipped with Dust-Stops.



Many ingenious examples show how air conditioning and Dust-Stop Air Filters help industry. Here you see the cooling units in a brewery. Dust-Stops in the ventilating system of this room protect the exposed and cooling beer from impurities.



Quick, Elmer . . . the G-men!

" . . . There's a young man printing postage stamps and postmarks in that office down the hall! He's bold as brass, too—leaves the door wide open."

Aunt Harriet hasn't been around very much, and the war news has her all upset. She sees Fifth Columnists everywhere! But Elmer, her nephew, told her that his office printed postage, too; and that it was just as legal as lollipops when you used a Pitney-Bowes Postage Meter! He told her that the Meter replaced ordinary stamps, and lick-and-stick mailing . . . showed her how it *printed* any stamp denomination needed, with a dated postmark and advertising slogan, and sealed the envelopes simultaneously . . . described the automatic counters that show postage on hand, postage used . . . explained how Metered Mail, already cancelled and postmarked, took less time in the postoffice . . . and why Metered mailing saved time, effort and postage in his office . . . Now Aunt Harriet thinks it is the greatest invention since the curling iron!

Is there an Aunt Harriet in your business family?

A word to our nearest office will bring a demonstration of the Pitney-Bowes Postage Meter in yours—soon!

Branches in principal cities. Cf. telephone directory, or write
In Canada: Canadian Postage Meters & Machines Co., Ltd.

The Postage Meter Co.

1418 Pacific St., Stamford, Conn.

PITNEY-BOWES



I.L.A. Fires on Bridges

A.F.L. longshoremen tie up three Washington ports to break C.I.O.'s Coastwide grip.

THE LIFE of a waterfront employer on the Pacific Coast has consisted chiefly of weathering one labor crisis after another ever since Harry Bridges appeared over the horizon from Australia six years ago.

Last week, groggy shipowners and shippers were in the middle of the latest battle—a longshore tieup in three Washington ports, Tacoma, Port Angeles, and Anacortes. For variety, this crisis was promoted by Bridges only indirectly, for it was instigated, nurtured, and carried out by the A.F.L. International Longshoremen's Association, which Bridges' C.I.O. group, the International Longshoremen's & Warehousemen's Union, has displaced in all the major ports of the Coast except Tacoma. I. L. A. does have a small following in other ports but dominates only in Tacoma, Port Angeles, and Anacortes.

Hostile to Board's Ruling

Two years ago, in one of the most controversial decisions it ever handed down, the National Labor Relations Board lumped the whole West Coast into one bargaining unit, and designated Bridges' I.L.W.U. as the official union for all Pacific longshoremen. In the 1,500-mile stretch of coastline only the three Washington ports were solidly I.L.A. and they never have accepted the board's ruling, although they work under contracts negotiated by the I.L.W.U.

Meanwhile, anti-Bridges sentiment in the Seattle local of the I.L.W.U. has grown. A few months ago, Bridges' candidates for office in the Seattle unit were defeated and men opposed to the Australian's domination were installed.

Encouraged by this growing trend, I.L.A. strategists figured the time for action had arrived last month—and I.L.A. unions in Tacoma, Port Angeles, and Anacortes demanded separate bargaining rights in the three ports.

"Strike against Government"?

The situation was complicated when Wayne L. Morse, the highly-respected coastwide arbitrator whose decisions have been pretty consistently accepted by both employers and unions, pronounced the strike a violation of the longshoremen's contract. He reasoned that it had "all the earmarks of a strike against the government" (because it challenges the authority of the NLRB). The strike continued.

Last weekend, the Waterfront Employers' Association wired President Roosevelt that "ports are closed, ships are stopped, and cargoes, including hundreds of tons of structural steel for government ships now building in Tacoma,

The Caterpillar Whiz, or Love in Peoria

NEWEST WRINKLE in public relations this month takes the form of a summer-fiction serial in *The Peoria Journal-Transcript*. Biggest industry in Peoria, with about one-third of the total population directly supported from its payroll, is Caterpillar Tractor Co. The paper's managing editor, abetted by the company's public relations staff figured out that to a very large chunk of Peorians the most gripping locale for a love-and-adventure story would be the Caterpillar plant.

The consequence is an opus called "The Caterpillar Whiz," by Eddie Ellis, a *J-T* legman with fiction-writing ambitions. The Whiz is an inventive machinist at the tractor plant, playing opposite a Caterpillar stenographic number who thinks he is just too divine. Villain is the machinist at the next lathe. Villain breaks into Whiz's locker and steals invention—only to be thwarted by the girl friend, who is ably backed up by right-thinking, clean-living first-basemen and centerfielders from Caterpillar athletic teams, and by company executives who come in always on the side of justice and romance, though sometimes a trifle tardily.

No monumental work of literature, "The Caterpillar Whiz" has built up a red-hot following in the few days it has been in process of exposing its plot to the public gaze, may launch a wave of industrialized, syndicated, serial fiction.

are tied up." However, they privately cheered the implication of the strike—that there is a trend toward open rebellion against Bridges' domination on the part of both C.I.O. and A.F.L. longshoremen in Northwest ports.

No Fair Labor Pains

New York exposition avoids grief that marked first year. Will help 4,900 employees find jobs.

At 12:01 A.M., Oct. 28, The World of Tomorrow will belong to the ages; and all assets, due bills, property, and chattels of the New York World's Fair Corporation will be on the block to keep the balance sheet's totals, writ in red, from being too much of a shock to bondholders.

The vicissitudes of the 1940 Fair were many. Bad weather, poor attendance, international complications which kept foreign exhibitors away were among the worries. Yet one irritant of the '39 fair

His job has just begun



When your Standard agent or broker delivers your insurance policy or bond—his job has only begun! From there on, he becomes a staunch guardian of your welfare, keeping you informed of changes in coverage, suggesting possible economies—and, of vital concern to you, giving ready counsel and help when mishaps occur.

Back of every Standard agent or broker is an experienced organization providing sound protection against the consequences of automobile accident; burglary; embezzlement; injury to the individual, employee, or the public; and similar hazards.

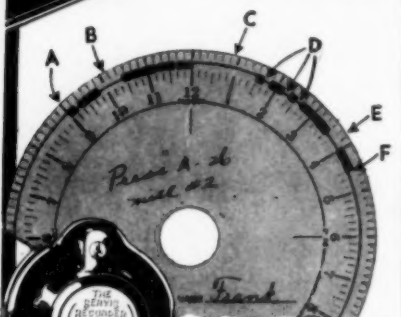
For any form of Casualty Insurance and Bonding, consult a representative of Standard of Detroit.

STANDARD ACCIDENT INSURANCE COMPANY

Standard Service Satisfies . . . Since 1884

A "Time Clock" for Machinery!

Heavy Marks Show Busy Time of Machinery



"Diary of a Machine"

- A—Didn't get started until 9 A. M.
- B—Stop of 40 minutes—waiting for material.
- C—A heavy lunch!
- D—Three 10-minute stops—machine jammed, poor material.
- E—Operative left machine for half an hour. Why?
- F—Plenty of time to wash up! Quitting time not until 5:00.

What Does It Cost You when Machinery is IDLE

for half an hour when it might have been producing? Suppose you could increase its running time merely 10 minutes a day. What would it mean? More than you'll ever save by "little economies."

The big economy in any plant is to increase productive time, if only five per cent.

You don't have to hold a stop-watch to do it. Clamp a **Servis Recorder** right to any machine and leave it there. Leave it all day. The next morning ask for the chart. No mistakes here. Your machinery has automatically written its own story for 24 hours. You can read it at a glance—busy time—idle time.

THE SERVIS RECORDER

"Thousands in use"

Then? Then you *know* just what to do about those stops and delays. Ask for full information—use coupon below.

THE SERVICE RECORDER CO.

Cleveland, Ohio

Write for it TODAY!

THE SERVICE RECORDER CO.,
1375 Euclid Ave., Cleveland, Ohio
Please send us, without obligation "A BUSY PLANT—But how busy?"

Company.....
Attention of.....
Street.....
City & State.....

which was conspicuous by its absence in '40 was labor trouble. To be sure, reopening the show was attended by a flurry of altercations between exhibitors and entertainment unions, and between the fair itself and some of the construction trade organizations. But the charges of labor hijacking and union chiseling which had threatened to curdle the public relations cream in the fair's first year gave way to sweetness and light as the final season got under way.

For Keeping the Peace

Only rarely are such changes achieved by accident; the fair's transformation was by design. When Harvey Gibson took over in 1940 to give the fair a business administration, he was particularly sensitive to the labor problem. One of his first official acts was to establish a labor-relations department dedicated to keeping the peace (*BW—Apr 27 '40, p28*). The department's first head was John P. McInerney, long experienced in dealing with building trades unions. When the building was done, McInerney gave way to young Walter

Hooke as Gibson changed horses for a different kind of load. Hooke's record speaks for itself. The fair and its 4,000 employees are winding up their relationship in an atmosphere of mutual good will. So kindly does the fair feel toward its personnel that it is putting up \$1,500 to help finance a cooperative placement service, to find jobs for more than 4,000 of its workers who will be unemployed by November.

In a self-help arrangement, an elected committee representing all major departments is classifying all job-seekers by occupation and training. Late this month, it will circularize 25,000 firms with a leaflet describing the New York World's Fair Free Placement Service and giving brief accounts of the personnel available.

The prospective client list will include exhibitors, concessionaires, vendors, bondholders, banks, industries concerned with the rearmament program, department stores, advertising agencies, newspapers and radio chains. The fair's contribution will be used for printing and postage.

Jimmy Walker Becomes a Solomon

New York's cloak-and-suit industry is pretty pleased over its new impartial chairman, and political wise folk say Mr. Roosevelt isn't displeased by any means.

At 8:30 O'CLOCK Monday morning Jimmy Walker stepped jauntily into his new job as impartial chairman of New York City's cloak-and-suit industry. His early arrival disillusioned (temporarily at least) the office staff, which had ac-

cepted the reputation for tardiness cultivated by Jimmy as mayor of New York. The induction was hailed with delight by the workers and manufacturers of the garment district. The Walker qualities of humor, diplomacy, likableness, mental



James J. Walker, former New York mayor, accepts with thanks a \$20,000-a-year job as impartial chairman of the city's cloak-and-suit industry.

Also seated is David Dubinsky, head of the International Ladies' Garment Workers. Smiling down, industry and union officials.

agility will stand him in good stead as arbiter of quarrels in an industry celebrated for explosive emotions.

Republican-Fusion Mayor Fiorello La Guardia appointed his Democratic predecessor to the \$20,000-a-year job at the request of the industry when it failed to agree on a candidate. The two are old personal friends, though they disagree politically. Resignation of Sol Rosenblatt as cloak-and-suit arbiter to become counsel for the Democratic National Committee left the job open. Back of the appointment is a story as fascinating as any to be found in the length and breadth of a presidential campaign.

Providential Development

The wily Mr. Roosevelt was caught in 1932 on a dead spot between nomination and election time. A story that will go ringing down the corridors of history credits F.D.R. with saying: "After the convention I was greatly worried over keeping my candidacy before the public. And God gave me Jimmy Walker."

As Governor of New York, F.D.R. had Tammany Mayor Walker up for charges resulting from the Seabury investigation. He made sensational headlines by picking Mayor Walker to pieces as a bad little boy disassembles a beetle. Walker resigned. The ex-mayor went to England, where he lived for a time as a gent of leisure. Then he tried writing for Hearst. Later he came home and in 1937 was appointed special counsel to the N. Y. Transit Commission at \$12,000 a year. Courts declared the appointment illegal after critics charged that it was an attempt to get the ex-mayor in on a city pension. Last year Jimmy tried broadcasting. One program was for Crawford clothes, effectiveness of which was enhanced by the broadcaster's reputation as a snappy dresser. Since then he has practiced law.

Wisenheimers in the cloak-and-suit business say that Jimmy's new job is approved by the once-disapproving Mr. Roosevelt. Seeking a third term, F.D.R. needs every vote he can get in New York City, Tammany or what have you.

All Right with Dubinsky

Real dictator of New York's \$260,000,000 garment industry is chunky, round-faced David Dubinsky, head of the mighty International Ladies' Garment Workers' Union. With a mortality rate among garment manufacturers comparing favorably with that of flies, the solidly-knit labor front lays down conditions under which employers exist. Dubinsky, hence, had the naming of the impartial chairman. If F.D.R. wanted to chuck Tammany under the chin with the Walker appointment, it was all right with Dubinsky, who yields to none in appreciation of Mr. Roosevelt. Mayor La Guardia, more than friendly to the President, would also follow his wishes.

No city money is contributed to the



EXCUSE MY DUST I

If you are breezing along the open road—sure! But if yours is an industrial dust in which employees must work day after day—that's a horse of another color.

Because dusts and fumes are so subtle in their action, it is all too easy for the damage to be done before the danger is realized. WILLSON Dust Sampling Apparatus will enable your engineers to keep an accurate check on the air in your plant. This will enable you to avoid the dangerous conditions that might lead to pulmonary infection. Write today for complete information on WILLSON Air Conditioning Instruments and WILLSON Safety Service.

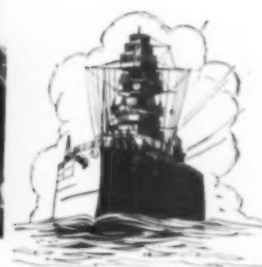
The Dust Sampling Apparatus here shown is just one of a group of scientific instruments manufactured by Willson to determine air and dust conditions.



WILLSON
DOUBLE
PRODUCTS INCORPORATED
READING, PA., U.S.A. *Established 1870*



RESPIRATORS • HELMETS
GOOGLES • GAS MASKS



For Defense
You Can
Depend
upon



At flying fields, in camps, munitions plants, food factories, and on naval and transport ships, thousands of Frick cooling systems helped America win in 1917-18.

Today, refrigerating, ice-making and air conditioning equipment plays a still more important part. The food industries use "cold" as never before. Quick-frozen foods are stored by the millions of pounds. Frick machines are even installed in many U. S. submarines.

Wherever the greatest reliability and cooling capacity are needed, you can depend on Frick Refrigeration. Write for estimates.

FRICK COMPANY, Waynesboro, Penna.
Dependable Refrigeration since 1882

Refrigeration



STANDARD CONVEYOR ENGINEERS CAN SHOW YOU HOW TO GET IT *Without* ENLARGING YOUR PRESENT PLANT

Materials and merchandise should move in confined, well-planned channels — not sprawl and spread wastefully over costly plant space.

Standard Conveyor engineers have shown hundreds of manufacturers how to conserve valuable floor space by planned material handling.

In every plant there are production operations which can be conveyORIZED with substantial savings of space, time and costs. Handling incoming material — work in process — moving finished products to shipping or storage — at any one or all of these points Standard Conveyors can earn money for you. Have a Standard engineer call and make recommendations.

— Send for "Conveyors by Standard," showing what Standard has done for other manufacturers.

STANDARD CONVEYOR COMPANY
General Offices: North St. Paul, Minn.
Sales and Engineering Service in All Principal Cities.

Standard CONVEYORS
"THE STANDARD OF VALUE"



Walker salary. The expense is cut five ways among the Joint Board of Cloak, Suit, Skirt and Reefer Makers' Union (Dubinsky's); Merchants' Ladies' Garment Association (jobbers); Industrial Council of Cloak, Suit and Skirt Manufacturers, Inc.; Infants' and Children's Coat Association; Contractors Association. Approving the deal but not participating in the contribution is the National Coat and Suit Industry Recovery Board (BW—Jun 27 '36, p. 22), which seeks to promote sales and union standards throughout the country and is dominated by New York.

As umpire for the industry, Walker's word has back of it the power of New York's liberal labor laws. Many cases involve personalities, prayers, lamentations. A suit manufacturer, say, is accused of failure to allot enough work to a presser who jilted his cousin. The union files complaint with the manufacturer's association. If demands aren't satisfied the case goes to executives of the union and association, and if they can't agree, the matter goes to Impartial Chairman Walker. He can impose penalties and courts will support them. Violations of contracts also come under his jurisdiction. He will settle details left hanging by the recent cloakmakers' contract.

Apprenticeship: 1940

Plant training program of Fairbanks, Morse & Co. favorably cited by federal committee.

NATIONAL DEFENSE production requirements have focused new attention on apprentice training. To provide industry with guidance, a Federal Committee on Apprenticeship has been established. The committee has only advisory powers, but the fact that voluntary calls for its services have necessitated a doubling of its staff in the last four months is testimony to its contribution.

One job of the committee is to keep informed on going apprentice schemes and to be prepared with recommendations for employers who face parallel problems. An apprenticeship program which the federal committee considers exemplary is being conducted at the Fairbanks, Morse & Co. plant in Beloit, Wisconsin.

This particular F. M. plant employs around 4,000 metal trades workers and, under collective agreements with both the Congress of Industrial Organizations and American Federation of Labor (depending on the shop), it employs between 100 and 200 apprentices. (At the latest report, the company had 60 machinist, 15 toolmaker, 8 patternmaker, 9 molder, 6 welding designer, 5 diesel-engine erector and tester, and 5 miscellaneous apprentices.) The F. M. apprenticeship system is administered in cooperation with the Wisconsin Industrial Commission under

the State Apprenticeship Law. Because the federal committee recognizes the commission as a satisfactory apprentice-supervising agency, Fairbanks, Morse apprentices are exempted from Wage-Hour Law regulations.

State Fixes Form of Indenture

The apprentice is placed under an indenture, the form of which is prescribed by the state. In case of a machinist apprentice, for example, the agreement states that the boy shall be apprenticed at the machinist trade for a period of 8,320 hours (4 years) of work on the job, of which the first 500 hours (3 months) shall be considered probationary. At least 144 hours per year of this time shall be devoted to class work in subjects related to his trade at the local public vocational school.

It is agreed that the apprentice will work for approximately 6 months each on drill presses, radial drills, milling machines, and bench assembly; and approximately 8 months each on engine lathes, turret lathes, and boring mills. (In actual administrative practice this schedule is given in more detail.)

The apprentice wage scale, fixed by six-month intervals, advances from 30¢ an hour in the first year to 53¢ an hour in the last half-year period. The apprentice is guaranteed a bonus of \$100 on graduation in addition to a certificate indorsed by the employer and the state supervisor of apprenticeship.

Apprenticeship in the plant is under the sole charge of a company-employed supervisor, who is responsible to the plant superintendent. He examines the work of each apprentice every day, and maintains a permanent record of his progress. Written monthly reports from shop foremen help him in making his judgments. No matter how well adapted an apprentice may be for one type of work, he is not allowed to remain at it for a longer period than his contract sets, but must be moved along to other operations.

Piece Rates Spur Output

The company stimulates the interest and productivity of its apprentices with varied techniques. Example: F. M. will pay an apprentice piece rates above the guaranteed scale which the indenture sets if he is good enough to earn it. The arrangement gives the boy an opportunity to earn 50% of the standard rate his first year, 75% the second year, and the full journeyman scale during his last two years as an apprentice. Thus the apprentice may earn more but never less than his indenture guarantees. The company finds that this not only stimulates production, but also insures more accurate workmanship, and greater willingness to accept responsibility.

On the average, the company breaks even while the competent apprentice boosts his earnings.

PRODUCTION

From Lab to Industry

American Cyanamid Co. to begin full-scale production of two important chemical synthetics.

FOR THE FIRST TIME in chemical history, acrylonitrile and melamine, the mouth-filling names of two important chemicals for widely differing uses, are going into full-scale commercial production in the plants of American Cyanamid Co. The first, a liquid, combines with petroleum-derived, liquid butadiene to make "per-bunan," one of the "buna" synthetic rubber group (BW—Apr 13 '40, p. 51). The second, a crystalline substance which was a chemical curiosity two years ago when it sold for about \$40 per lb., is a synthetic plastic presently to be sold at about 55¢. Both stem from calcium cyanamide, the compound synthesized from limestone, coal, and air, which gives its well-known name to its principal manufacturer.

Used in Buna Production

Because acrylonitrile can also be synthesized from petroleum, it was pretty generally taken for granted when Standard Oil Development Co. acquired the American rights to produce buna that the new Baton Rouge plant of Standard Oil of Louisiana would make both acrylonitrile and butadiene for its buna production. Latest dope, however, is that, when the plant opens up early next year, it will use Aero brand acrylonitrile furnished by Cyanamid.

How limestone, coal, and air become calcium cyanamide is sheer chemical romance. Limestone burned becomes lime; coal heated in an oxygenless atmosphere becomes coke. Coke and lime heated to terrific temperatures in big electric furnaces unite to form calcium carbide, which used to be thought of only as an acetylene-gas-making medium for bicycle and automobile lamps. During all these reactions, air is being compressed and cooled into liquid air, from which nitrogen is fractionally distilled. Next step is to combine nitrogen with calcium carbide in "fixation ovens" to form calcium cyanamide.

Chemists Have Exploratory Task

Just how the cyanamide is made commercially into acrylonitrile is one of American Cyanamid's secrets. However it is accomplished, the crystalline cyanamide gets certain additions of hydrogen atoms and becomes a colorless liquid with a mild and not unpleasant acrid odor. It is stable during storage and so non-corrosive that it can be shipped in steel drums. Great care must be taken to keep out traces of copper and certain other materials, because they completely in-

PAIRED WITH THE *Leaders* FOR STEAM ECONOMY

CROWN BRAND RAYON YARN

by
**AMERICAN VISCOSE
CORPORATION**

A PIONEER OF A NEW PRODUCT



Steam Source
by

**COMBUSTION
ENGINEERING**

LEADER IN MODERN STEAM GENERATION

When a spectacular new material wins widespread public approval, it takes all the genius of a progressive management to meet unprecedented consumer demand with rapid but prudent expansion of manufacturing facilities. Such has been the role of American Viscose Corporation in reaching its present annual capacity of over 170,000,000 lb of rayon yarn and staple fibre.

As you'd expect, such progressive management looks to other progressive companies to furnish vital manufacturing facilities, especially so in the case of major equipment as important as the steam generating plant.

Hence, last year, for the new plant at Front Royal, Va., C-E supplied three big steam generating units, each with a capacity of 225,000 lb of steam per hour. Previously, in 1936, another three units were manufactured by C-E for the plant at Marcus Hook, Pa. Even before 1936, C-E equipment was already serving commendably in other American Viscose plants.

This consistent selection of C-E equipment by another big name in American Industry has its significance for you. It points to a source of steam generating equipment where progressive standards of design and construction assure the utmost economy of steam generation. Whatever your steam requirements, look to C-E to plan an installation suited to your needs.

COMBUSTION ENGINEERING

200 Madison Avenue, New York, N. Y.

C-E PRODUCTS INCLUDE ALL TYPES OF  BOILERS, FURNACES, PULVERIZED FUEL SYSTEMS AND STOKERS; ALSO SUPERHEATERS, ECONOMIZERS AND AIR HEATERS

• A544

TO ASSURE NATIONAL DEFENSE PRODUCTION

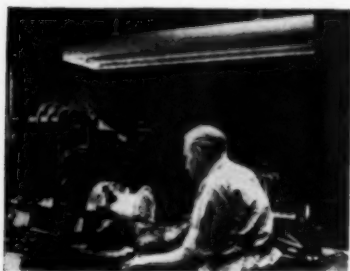
FLUORESCENT LIGHTING

With National Defense uppermost in the minds of Management, American Industry and Commerce now turn to the means of obtaining high speed production.

A "Must" among production facilities—in both plants and offices—is sound, adequate lighting. Westinghouse suggests to Management that Fluorescent Lighting aptly fits National Defense work requirements because the higher illumination levels so essential to high speed and accuracy are now made economically possible. Fluorescent Lighting helps step up production, makes possible work with fewer errors, improves inspection operations, increases precision workmanship, and reduces rejects. Furthermore, it gives adequate visibility for every shift, and assures greater accuracy in delicate, light-demanding tasks.

Fluorescent Lighting by Westinghouse offers these distinct advantages: It is 50% cooler—may be placed much closer to detail work. It is far more efficient—gives twice as much light without glare or harsh shadow. It is easy to install and low in maintenance cost—may be used as single units grouped at regular spacing intervals, or in continuous strip illumination for production and assembly operations. Standard Westinghouse ballasts provide high power factor and minimize cyclic flicker.

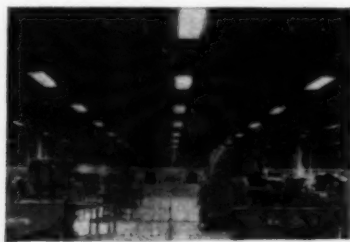
Fluorescent Lighting by Westinghouse blankets every industrial and commercial requirement. Features include rugged lamp holders, dependable starters, a variety of porcelain enameled and Alzak Aluminum reflectors and several types of mountings. 117 Westinghouse Electric Supply Company offices or Independent Westinghouse Lighting Distributors make it easy for you to obtain Fluorescent Lighting anywhere in the United States. Ask your Westinghouse Lighting Distributor today for full information. Westinghouse also makes a complete line of Mazda Lighting equipment, including Protective Floodlighting. Westinghouse Electric & Mfg. Co., Lighting Division, Edgewater Park, Cleveland, Ohio.



Adequate illumination for the finest precision and testing operations.



In inspection operations Fluorescent Lighting reduces rejects.



Fluorescent Lighting brings daylight in this airplane engine manufacturing plant.

Westinghouse

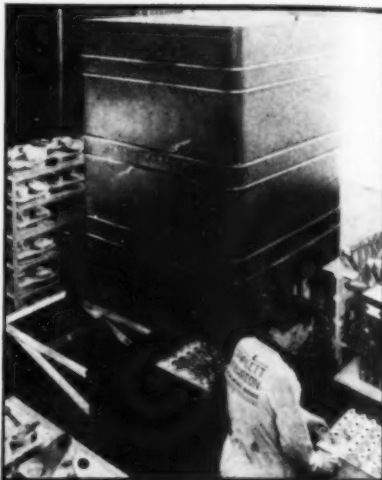
FLUORESCENT LIGHTING



hibit the formation of synthetic rubber when brought into contact with butadiene. Acrylonitrile is so new that research chemists have had little opportunity to explore its field of application outside of rubber synthesis.

Like acrylonitrile, melamine plastic is made in ways mysterious to non-chemical laymen. Here, however, the addition of hydrogen atoms to calcium cyanamide results in a crystalline, rather than a liquid substance. Fortunately for its pro-

X-ray for Aircraft Parts



BUILT by the Triplett & Barton laboratories in the Lockheed Aircraft plant, Burbank, Calif., this "40-1" machine is used by Lockheed to X-ray and assure the perfection of all stress parts.

The upper structure of the machine contains a special metallurgical X-ray tube, forced-draft, air-cooled, shielded by 1,800 lbs. of lead, taking current from any light socket. The operator loads the left side of a platform below the hood with parts to be tested, lowers the shield, and loads the opposite platform while the exposure is being made. Thus testing is continuous, and the average output is 5,000 parts daily. Older X-ray units displaced had 30% the capacity.

X-ray testing was adopted at Lockheed five years ago, experimentally. Experience soon showed that 100% testing was necessary to prevent failure; and that testing decreased production costs.

In addition to X-ray testing, the Triplett & Barton lab at the Lockheed plant operates a spectograph, Strobotac, Strobolux, Edgerton high-speed spark camera, fatigue-testing machines, and a chemical laboratory. It is a separate organization, serving other West Coast airplane plants.

Tune in "Musical Americana," N. B. C. Network, Coast-to-Coast, every Tuesday evening.

ducer, it is not likely to compete with "Beetle," the urea-formaldehyde plastic which Cyanamid has been synthesizing these many years for molding into a thousand or more forms of Beetleware.

Right now it looks as if the field of melamine is going to be that of an additive to other plastics. Mixed with them in suitable quantities, it has the quality of reducing molding temperatures and curing times, and of imparting a higher, more durable gloss, particularly in plastics subjected to high temperatures. Laboratory tests indicate that melamine, a thermosetting resin, is going to establish new standards of quality in coating, molding, laminating and other fields of resin application.

From Refrigerators to Autos

Biggest field may prove to be that of baking enamels for products ranging from mechanical refrigerators to electric and gas ranges to automobiles. Already the not-quite-so-new alkyd resins (like Cyanamid's own Rezyl and Teglac, du Pont's Dulux, General Electric's Glyptal, Reichhold's Beckosol, and Röhm & Haas' Duraplex and Paraplex) are encroaching on white and colored porcelain enamels. Melamine mixed with one or more of the alkyds will produce baking enamels which will cure quickly at 220-deg. F. temperatures and lower, and will withstand temperatures up to 400 deg. in service without appreciable loss of color or whiteness.

What It Takes

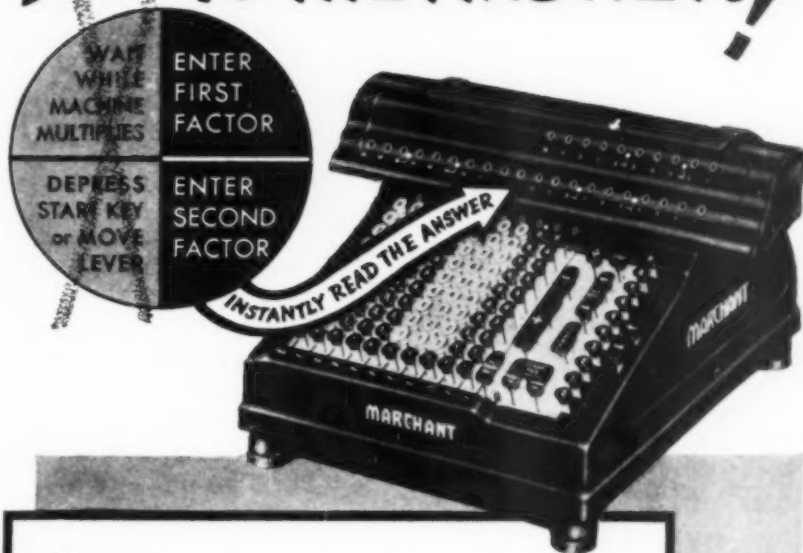
EVERY SUMMER, the nation's automobile plants slow down or shut down for the annual change-over from this year's models to next year's. New machinery, ordered months ago, is installed. Assembly lines are rearranged to expedite the new product. To give John Q. Public a broad idea of the months of designing and planning behind the actual production of new cars (and at the same time indirectly to explain the unavoidable time lag in mass production of defense airplanes, tanks, and guns), the Automobile Manufacturers' Association, New Center Bldg., Detroit, is getting out a 32-page illustrated brochure, "What It Takes to Make an Automobile."

Aircraft Standardization

THE Society of Automotive Engineers has organized an Aeronautical Standards Board for National Defense. Chairman will be Theodore P. Wright, Curtiss-Wright's vice-president in charge of engineering, now on leave of absence to serve as executive officer of the Airplane and Engine Division, the National Defense Advisory Commission.

Main job of the new board, according to John A. C. Warner, S.A.E. general manager, will be a "cooperative program of development and coordination of aircraft standardization," bringing with it

TWO LESS STEPS TO THE ANSWER!



YOU may be justly proud of the efficiency of your office personnel. But actually you may be handicapping them by forcing them to work with calculators that LOAF on the job... calculating machines that require too many steps and too much time to get an answer.

Such calculators may give the impression of doing a great deal... while really they are soldiering on your time and accomplishing far less than they should.

MARCHANT CALCULATORS SAVE STEPS

For example, let's take multiplication:

Marchant Calculators go direct to the answer in two steps... and without mechanical or operator delay... because the Marchant is doing the multiplying during the time that the operator is entering the factors into the calculator. Simultaneously with completion of this entry the "Right Answer" instantly appears.

Marchant's action is always direct. Work goes smoother. Operators are not fatigued... and there is greater figure output at the end of each day.

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THE NEW LOW-COST RESIN VINSOL*

A Rigid Thermoplastic Binder

For instance, adds stiffness to asphalt-board—hardness to soft plastic masses

Vinsol Also Offers Unusual Advantages for Making:

Shellac substitutes	Hard pressed board
Asphalt emulsions	Adhesives
Cement plasticisers and grinding aids	Impregnated paper products
Extenders for phenolic resins	Laminating varnish
Paints	Cold molded plastics
Varnishes	Motor windings
Stains	Transformers
Nitrocellulose lacquer	High voltage insulation

A FEW OF THE VALUABLE PROPERTIES THAT EXPLAIN WIDE USES FOR VINSOL

Insoluble in petroleum derivatives—Chemists know how unusual and important this is in protective coatings, plastics, and other products.

Excellent electrical characteristics—At 85°C., breakdown is above 20,000 volts; power factor ranges from 0.5% at 25°C. to 15.2% at 103°C., dielectric constant from 2.81% to 6.5%.

Available in pulverized form—60% passes 200 mesh screen; 100% passes 30 mesh. Does not set or cake under normal temperature and humidity.

Easily esterified—With glycerin, ethylene glycol, diethylene glycol, etc., Vinsol yields resins of value in lacquers and varnishes.

Easily saponified—Produces emulsions of extreme stability—valuable in asphalt emulsions.

Other important properties—Dark-colored; dark red by transmitted light; chemically and physically stable; melts at about 115°C.; acid number, 93.

FREE SAMPLE OFFER: tell us how much Vinsol you need for trial.

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more parts, accessories, and assemblies which may be readily interchanged from plane to plane. Consequences will be speedier production, easier maintenance, more airworthy planes.

New Uses for Chlorite

SODIUM CHLORITE, NaClO_2 , called "chlorite" for short, is the next chemical to be produced on a large scale by Mathieson Alkali Works. Known for over a century, chlorite's commercial possibilities did not really appear until Mathieson undertook a ten-year research program.

Now it develops that the material makes possible a "whiter, stronger" domestic paper pulp than that heretofore imported from Norway, Sweden, and Finland. It will make kraft paper as white as book paper, with strength undiminished. Its bleaching power will remove "coloring matter from cotton, rayon . . . and other cellulose fibers, but unlike hypochlorite, it is not strong enough to attack the fibers themselves." Chlorite will also make a strong bid as a bleach for straw hats, flour, starch, plastics.

Guesswork Ruled Out

NOT SATISFIED with a good day's work in reporting the completion of the new and important American Standard for Twist Drills, American Standards Association announces that it has been requested by the American Society of Tool Engineers to undertake a new project on the classification of tool steels by classes of usage.

Purpose of the drill standard is the establishment of an understandable nomenclature and a table of 116 standard drill diameters from 0.0156 to 0.5 in. with corresponding over-all and flute lengths. Purpose of the steel standard will be the elimination of guesswork on the part of manufacturers in selecting proper steels for various uses. Though they have no steel in their make-up, cemented carbides and Stellite will both be included in the cutting-tool study.

Synthetic Nozzle

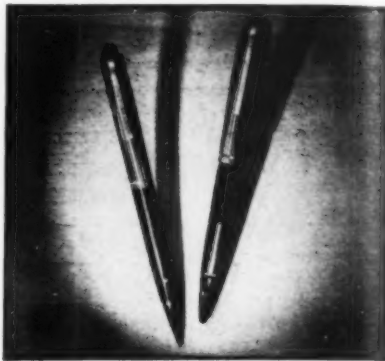
SCARCELY BEFORE THE INK IS DRY on the announcement that the B. F. Goodrich Co. has developed various special compounds of synthetic and natural rubber that will conduct electricity (*BW—Sep-7'40, p. 51*), comes a report that one of the synthetics is going into a flexible nozzle for gasoline hose.

Rigid tests by Underwriters Laboratories, Inc., prior to approval of the nozzle, indicate that it not only resists the chemical action of gasoline, but provides a good "ground" for static electricity, carrying it off before there is a chance for sparks and explosions. According to the report, "the new nozzle removed static charges at about the same rate as a metal nozzle."

NEW PRODUCTS

High Altitude Pen

SEVERAL MONTHS AGO, air-line officials suggested the need of a fountain pen which would not flood at high altitudes. Soon thereafter, Eversharp, Inc., 1809 Roscoe St., Chicago, brought out a pen with "magic feed" to keep ink in its



proper place. Next step, to be announced by radio shortly, is a new magically fed Eversharp Pen in modern dress developed by Henry Dreyfuss, New York industrial designer. It will come in six different two-tone color combinations of du Pont Pyralin and gold or stainless steel. With it will come a matching Eversharp Repeating Pencil.

Versatile Enlarging Paper

BY SCREENING a light source with different color filters, a new photographic enlarging paper called Defender Varigam will make pictures with widely differing "contrast" from a given negative. Conversely, it is possible to obtain prints of practically uniform quality from negatives of more or less contrast and density. By printing in and "dodging," special effects are obtainable, such as sharp portraits with dull backgrounds. Defender Photo Supply Co., Inc., Rochester, N. Y., makes the paper in five surfaces, provides color filters.

Industrial Humidifier

SIMPLICITY of installation has been stressed by Walton Laboratories, Inc., Irvington, N. J., in its new Walton Industrial Humidifier, which needs only a water and a power connection. Although it has an evaporating capacity of 24 gallons of water daily, it may be hung close to the ceiling without the danger of precipitation or the falling of free moisture. Its G-E ball-bearing motor draws about 100 watts of current.

Industrial Water Cooler

FOR STEEL MILLS and other heavy industries where workers need a lot of drinking water, General Electric Co., Bloomfield, N. J., is bringing out a new high capacity G-E Industrial Water Cooler

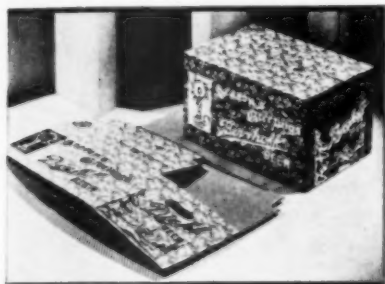
with two "bubblers" and two foot controls on opposite sides. The top is a single piece of drawn stainless steel with two integral non-splashing drain bowls. In the base are a 3-hp. refrigerating mechanism and a 10-gallon stainless-steel storage tank.

Cabinet-Heater-Dryer

THREE DISTINCT JOBS fall within the scope of the new Barton Cabinet-Heater-Dryer for modern bathrooms. It is a white-enameled cabinet, 42-in. high, 14-in. wide, 12-in. deep. Barton Corp., West Bend, Wis., equips it with an electric fan and heater. Fourteen rods provide 20 lineal ft. of drying space for damp clothes. Being close together, the same rods act as two shelves for storing towels, soap, and other bathroom necessities. When the bathroom is chilly, leave the cabinet door open for the heater to get in its best work.

Beer Case Slip Covers

THE BREWERS of Diehl and Berghoff Beers are getting ready for the Christmas trade with simple "Slip Covers" for their standard beer cases. Hinde & Dauch Paper Co., Sandusky, Ohio, makes them



out of corrugated board decorated with holly designs. If after the holidays, any of the beer is unsold by a retailer, he can easily remove the covers without returning merchandise for repackaging.

Paper Drill

DESIGNED FOR OFFICES which have too much paper punching for the ordinary hand punch and too little for a power drill, the Bull's Eye Paper Drill Model B comes from Christie-Lucas, Inc., 25 North St., Rochester, N. Y. Though it is entirely hand-operated, a girl can drill 250 sheets at a time. Holes from $\frac{1}{8}$ to $\frac{1}{4}$ in. diameter can be located quickly at distances from $\frac{1}{4}$ to $1\frac{1}{2}$ in. from the edge of the stock.

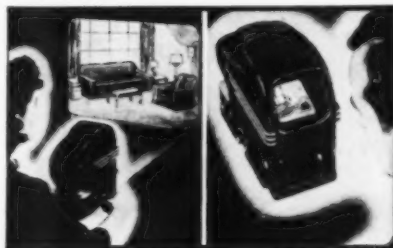
Velocity Power Tools

TO ITS LINE of velocity-power tools, wherein a blank cartridge does the work, Mine Safety Appliances Co., Pittsburgh, is adding the M.S.A. Velocity-Power Rail Punch and the M.S.A. Velocity-Power Cable Splicer. The punch, which weighs only 42 lb., will make clean, burrless holes in rail webs for either track bolts or rail bonds. The splicer, which weighs only 6 lb., compresses a copper

sleeve around the butted ends of a broken power cable, instantaneously.

Viewer-Projector

WHOLE SAMPLE LINES can be photographed on 35-mm. slides (in color or black and white) and shown to prospects in the Hollywood Viewer-Projector, new



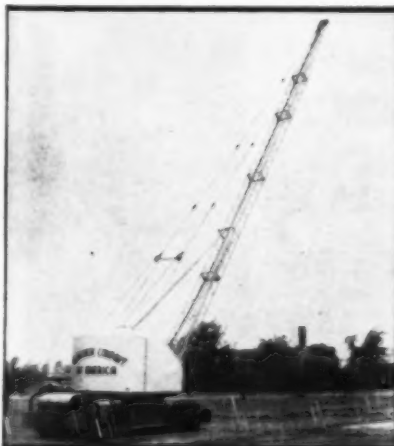
product of Craftsmen's Guild, 1640 W. Washington Blvd., Los Angeles. For projection in a darkened room, the outfit throws a sharp 20x28-in. image on any light-colored wall at 7 ft., a 36x52-in. image at 13 ft. For viewing in daylight, it throws a 4½-in. image on a miniature screen within the cabinet.

Ice Discourager

INSURANCE against frozen roof drains and leaders, and subsequent damage by leaks and overhanging ice, will be furnished by the "No-Freeze." It is a 5-in. metal globe containing a non-freezing, non-corroding chemical which dissolves in contact with snow, drops down the drain, and keeps it open. The unit is distributed exclusively by Eastern States Supply Co., 127 Troutman St., Brooklyn.

High-Wide Lifter

EQUIPPED with a 100-ft. boom, the new 3-yd. (15-ton capacity) "Supercrane" will propel itself at speeds of 10 miles



per hour on the road, will swing a load of 6,000 lb. in a full 50-ft. circle "without danger of tipping or breakdown." To achieve this stability, General Excavator Co., Marion, Ohio, builds the crane on a frame of heavy 20-in. I-beams, mounted on dual tires. Power for both propulsion and lifting comes from a single engine.

NEW CONTAINER CUTS COST OF SHIPPING AND HANDLING

Nails



Are you depriving YOUR Products of these advantages?

Saving storage room, adding advertising value, reducing weight, lowering handling and shipping costs—are but a few of the benefits obtained by manufacturers of nails, screws, washers and other metal products when old type containers are replaced by the modern All-Bound Box. The one-piece All-Bound Box benefits both shippers and receivers. It is easily, quickly assembled—no nails or tape necessary—and it has high customer re-use value.

Your products and your sales force are being penalized unnecessarily unless your shipping container provides maximum protection at the lowest possible cost.

Numerous manufacturers of electrical, steel, chemical and ceramic products have effected maximum shipping economy by using one or more types of General Box containers. A General Box engineer may be able to make suggestions which will add materially to your profits. Just mail the coupon today.

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MONEY AND THE MARKETS

FINANCE • SECURITIES • COMMODITIES

Cotton Growers Gain \$35,000,000

Substantial crop increase boosts income despite 5% drop in price during last month. Export outlook remains dark, indicating a large surplus.

RARELY has an American cotton crop improved more during a single month than did this year's in August. A month ago the Department of Agriculture's crop reporting board estimated the harvest at 11,429,000 bales. But the weevils have been lazy and the weather has been good. Now the crop looks to the Washington experts like some 12,772,000 bales.

The cotton trade was by no means unprepared for a sharp upward revision. Private estimates had run as high as 12,500,000 bales, and the average had been about 12,200,000. However, the

government's addition of 1,343,000 bales onto the figure of a month ago topped expectations of nearly everyone.

Over the period of the last month, cotton traders have been readjusting their price ideas to the prospect of a larger crop. When the estimate of 11,429,000 bales came out a month ago, the price of cotton on 10 leading spot markets averaged 9.91¢ a lb. (middling grade $\frac{1}{8}$ in. staple), indicating a value of about \$565,000,000 for the crop. Since that time prices have declined about 5% (the 10-market average was 9.45¢ a lb. on Monday, the day the new crop estimate

came out), but the crop prospect has risen almost 12%. Due to the fact that the price decline doesn't offset the larger harvest, the value of the 1940 cotton crop should be marked up to about \$600,000,000, a gain of \$35,000,000 in a month.

It's altogether possible that the price might have gone down more nearly in relationship to the increased size of the crop were it not for the federal loan for storage of surplus cotton. This loan figure now is not very far below the present price of cotton at most of the major marketing cities. Consequently, with the loan tending to prop up the price, speculators have been hesitant about selling short at these levels. Moreover, the crop is late and less than usual quantities have come to market, with the result that hedging sales have been light.

Export Outlook Poor

In more normal times, a cotton crop of less than 13,000,000 bales wouldn't be over-large. This country uses 7,000,000 bales in a good year, and the cotton trade for many years counted on exporting 6,000,000 bales or more. However, so many foreign markets are either cut off or greatly curtailed because of war that exports are running extremely low and the prospects are dismal.

The cotton year which ended July 31 saw the United States shipping about 6,300,000 bales to foreign countries (aided by the export subsidy and the rubber-cotton barter deal). Moreover, domestic mills used 7,746,000 bales in the 12 months from Aug. 1, 1939, to July 31, 1940, the second-largest total on record.

From these figures it will be seen that the United States either used up at home or shipped abroad a total of slightly over 14,000,000 bales. Maybe the exports of 6,300,000 bales weren't all used up within the cotton year, but they were taken off home markets. Remember, too, that last year's American crop totaled only 11,817,000 bales, so that disappearance ran about 2,200,000 in excess of production.

In other words, the United States dipped into the surplus of prior years for upwards of two million bales of cotton. The effect was to cut the carryover from previous crops to some 11,000,000 bales instead of the 13,000,000 of old cotton which had been on hand at the beginning of the 1939-40 season.

Nub of the Cotton Problem

When these 11,000,000 bales of old cotton are added onto the prospective 1940 pick of 12,772,000 bales, you arrive at the nub of the American cotton problem. Total supply now amounts to nearly 24,000,000 bales (and favorable weather so far in September may add a little bit more to this year's crop because the government estimate undertakes only to reflect condition on Sept. 1). Suppose home consumption runs between 7,000,000 and



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8,000,000 bales in the 1940-41 season. There still would be from 16,000,000 to 17,000,000 bales for export or for carry-over into the 1941-42 cotton year.

Even with a revival of the export subsidy, few observers believe that the United States can sell very much cotton in the current season. There is no predicting from one day to the next what England will be willing to take. Japan needs foreign exchange for war materials more vitally than for American cotton. Chinese mills can't be expected to take very much from the United States. Italy, France, Belgium, and Germany are blockaded. Thus it is probable that exports of 3,000,000 bales would be pretty satisfactory, and it would be no surprise if the carryover recorded on Aug. 1, 1941, should set an all-time high somewhere around 14,000,000 bales.

Too Many Soybeans?

With Europe blocked off by the war, trade wonders if domestic use has hit a temporary top.

WILL SOYBEANS from the 1940 harvest glut the market? Growers and processors fear so. This country's production has increased three-fold in the last three years, rate of expansion in domestic utilization seems to be slowing materially, and the war in Europe blocks export markets which took 11,000,000 bu. from Oct. 1, 1939 to Apr. 1, 1940.

Phenomenal increases in soybean production may be traced in part to the government's efforts to reduce acreages devoted to other crops. Much of the expansion has been on land taken out of corn production.

Crop Goes to Town

The soybean reached the United States in 1804 but the first commercial pressing, in North Carolina, did not take place until 1915. Since that initial extraction of oil, this crop has gone to town. Acreages harvested for beans jumped from 99,000 in 1919 to 450,000 in 1924, to 4,226,000 in 1939, and to an estimated 5,300,000 in 1940. The crop has risen from 30,000,000 bu. in 1936 to 87,409,000 in 1939. This year's acreage for harvest is up about 14%, but the condition of the crop is not nearly as good as a year ago. Consequently the official estimates of 1940 yield are not much changed from the actual 1939 harvest.

Extraction of soybean oil has kept pace with annual increases in bean production. In 1936 the yield was 183,711,000 lb. and in 1939 it was approximately 500,000,000 lb. Meanwhile, the consumption in vegetable cooking fats rose from 52,452,000 lb. in 1935 to 201,599,000 in 1939. Industrial users of the oil are estimated to have taken 34,500,000 lb. in 1937 and 56,000,000 in 1938. There undoubtedly was a further increase in

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BAR-OX "97"
The Penetrating Rust Inhibitor

—then paint as usual. Perhaps you wonder why rust keeps on destroying steel even after it is painted—and why it destroys the paint as well. Here's the reason. Rust, like a tubercular condition, continues progressively to destroy unless it is stopped. Paint alone will not stop corrosion. It merely covers up the rust, allowing the "disease" to continue. "What's the answer?" you say. The answer is—"Kill the rust." There's an easy way of doing this. Use BAR-OX "97."

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BAR-OX (bars oxidation) is a tried and proved, patented, anti-rust treatment—a rust inhibitor. So powerful are its penetrating qualities that it actually carries the rust arrester right into the body of the rust itself and prevents further "tubercular decay." Therefore by treating rusted surfaces with BAR-OX you protect your steel work—you protect your paint job. So before you do any steel painting be sure to use BAR-OX first. Among the prominent companies using BAR-OX are Baldwin Locomotive Works, Libbey-Owens-Ford Glass Company, Kellogg Company, Gulf Refining Company, Atlantic Refining Company, Dow Chemical Company, and hundreds of others.

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1939, but the trade is beginning to wonder if domestic utilization isn't approaching at least a temporary top.

Whether the limit of profitable use has been reached depends on many factors. Among them are possibilities for home consumption of oil and meal, competition with other materials, and the effect of war—or peace—on exports.

Utilization of meal will probably not vary much this year from last. E. F. ("Soybean") Johnson of Ralston-Purina Co., told the American Soybean Association at its annual convention in Dearborn, Mich., Aug. 18-19. About a million tons go to feed poultry and livestock, and nobody knows how much more protein concentrates the farmers can be induced to feed their stock. An ultimate maximum of 2,000,000 tons is

envisioned, but admittedly non-users are slow to take it up.

Excess meal can be converted into fertilizer, but this would be at the expense of cottonseed meal. Only 11,000 tons went into fertilizer last year. Similarly, plastics will have to begin to take tons instead of ounces before this outlet becomes important. The meal supplies some protein for the paper industry and 2,000,000 bu. of the bean is converted into glue, but the total is insignificant.

The oil in the paint field is classified as a slow drier, and only 28,000,000 lb. went into paint, varnish, and linoleum last year. However, O'Brien Varnish Co. is demonstrating a new rust-inhibitive varnish using the oil, and hope for expansion in this direction is harbored. All the while, there will be competition with

cottonseed oil and lard and linseed in the fields of edible and industrial oils.

Hides Prove Erratic

Spot and futures prices diverge, while demand is affected by cautiousness of shoe dealers.

THE UNUSUAL has been the expected in the hide markets for the past year or so. In other days, the spot and futures prices of dried cattle-skin reacted similarly to identical stimuli. Now they strike off in different patterns, although a sale of futures necessitates eventual delivery of a commodity presently quoted at about 28% more than the futures price. Spot prices of light native

Industry Raises Capital for Defense

INDUSTRY'S NEED FOR NEW MONEY to handle the mounting volume of domestic business rapidly is becoming the dominant influence in the capital markets. Often over the last year war conditions have so disturbed securities prices that corporate financing has seemed imprudent. Now, however, there is a mounting demand for additional funds, even from industries which haven't directly felt the push of national-defense business, and public offerings of new securities are forthcoming in a rising stream. This trend was highlighted the middle of this week when the Securities and Exchange Commission flashed the green light for the financing programs of Dow Chemical and Houston Natural Gas. These were the first two registrations to become effective under the

compulsory waiting period of 20 days on flotations of new stocks and bonds.

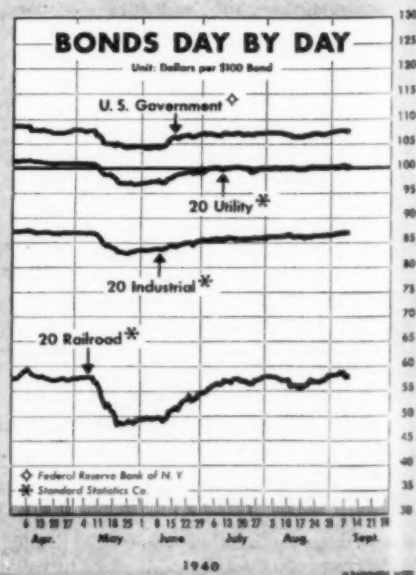
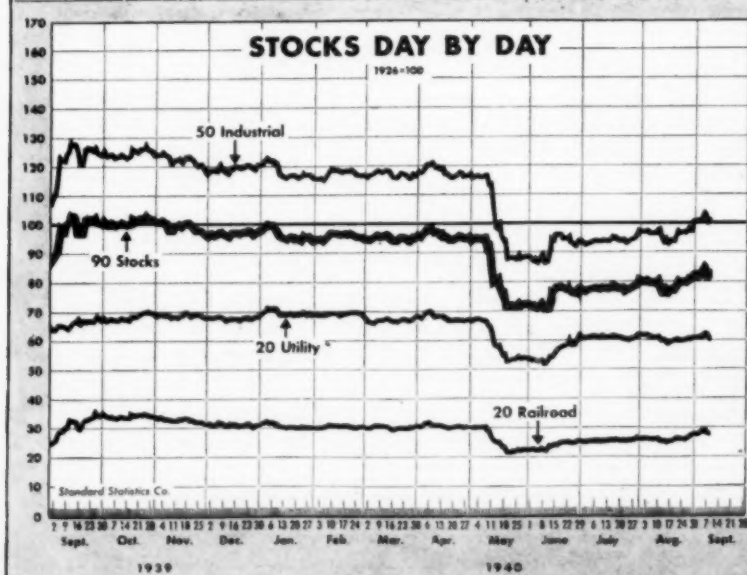
The amendment leaves the length of time a new issue will have to spend in "quarantine" to SEC discretion. In the case of the \$3,500,000 of bonds for the natural-gas company, the commission cleared the matter in seven days. Even though Dow Chemical made a major change in its \$25,000,000 financing plan, its offering of \$15,000,000 of debentures and 103,199 shares of common stock was authorized by the SEC after 13 days.

Hope for Still Shorter Wait

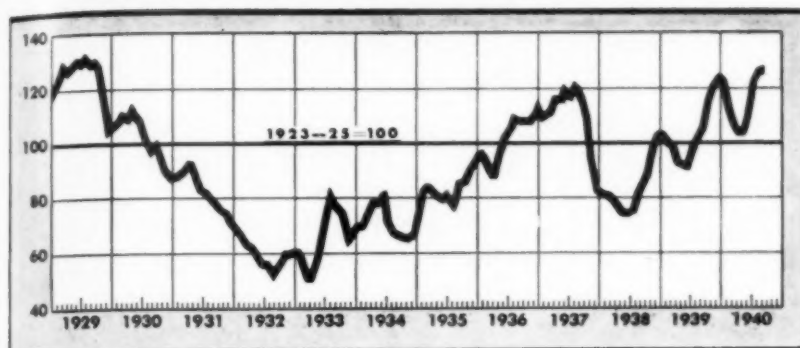
Of course, a wait of 13 days instead of 20 still seems pretty long. Even a seven-day lapse leaves much to be desired when an underwriter is trying to time the offering of a new issue in

these volatile markets. Yet even shorter waits may later be the rule. The SEC's announced intention to speed flotations leads underwriters to hope that future offerings will be further facilitated.

Encouragement is derived also from the fact that American markets, aided by domestic business vigor, are developing at least some slight degree of independence from the war news. Prices here cannot be said to ignore developments abroad, but they certainly have been a bit better than might have been expected during the aerial bombardment of London. And this week's new issues—including those for Dow, Houston Natural Gas, Western Auto Supply, and United Biscuit—certainly gave an excellent account of themselves.



Monthly Index Virtually Unchanged in August



Business Week's Monthly Index of Business Activity for August rose slightly to 127.7 from 127.3 in July.

This compares with 106.1 in August last year and is 1.8% above the 1939 high of 125.5 recorded in December.

steers were 12½¢ a pound at mid-week, compared with 9.83¢ for the December future.

Spot hide prices recently have been fluctuating with commission-house needs, coverage of contracts, dwindling domestic supply, and real demand. Futures traders keep a wary eye on South America's partial loss of its export market for surpluses and seem strangely sensitive to each wiggle in the securities market. They can cover their contracts by delivering light native cows, heavy steers, or butt-branded steers, whichever is cheaper.

The domestic situation is fairly good. In the United States, raw stocks in all hands at the end of July were at a high for the year of 3,889,000 hides, almost 2% above July 31, 1939. Yet this was smaller than for any other end-of-July figure for more than six years. Total in process and finished stocks in all hands of 8,826,000 hides, with the exception of two 1940 months, were lower than at any other time in more than two decades.

Retailers Hesitate to Load Up

Shoe retailers have been buying from hand-to-mouth, disinclined to load up in the face of uncertainties, although sales continued satisfactory. They have delayed purchasing stock to replace goods sold. Some now admit losing sales because of "being out of certain styles or sizes desired by customers." But men, women, and children must be shod, war or no war.

While inventories dwindled to the lowest levels in seven years, manufacturers curtailed output. Boot and shoe production for the first eight months of 1940 was around 265,995,000 pairs, 8% less than a year ago, although production turned upward in July and output last month was largest since August, 1939. At the end of last week tanners asked higher leather prices—or rather a restoration of the price maintained before declines of several months ago.

It's a strange business. First, the hide is created not for itself but strictly as a by-product of the slaughtering of cattle for meat. Next, it takes up to six months to make leather out of the hides; and tanners are reluctant to accumulate stocks on the gamble that a market for them will exist a half-year later on. Then, the shoe manufacturer, to prevent accumulation of large inventories of finished goods, must adjust output to demand—which must eventually come from retailers, who now see that shoes are

BENEFICIAL INDUSTRIAL
LOAN CORPORATION
DIVIDEND NOTICE

Dividends have been declared by the Board of Directors, as follows:

PRIOR PREFERENCE STOCK

\$2.50 Dividend Series of 1938

62½¢ per share

(for quarterly period ending Sept. 30, 1940)

COMMON STOCK

45¢ per share

Both dividends are payable Sept. 30, 1940 to stockholders of record at close of business Sept. 16, 1940.

E. A. BAILEY

Sept. 3, 1940

Treasurer

LOEW'S INCORPORATED

"THEATRES EVERYWHERE"

September 6, 1940

THE Board of Directors on September 4th, 1940 declared a dividend at the rate of 50¢ per share on the outstanding Common Stock of this Company, payable on September 30th, 1940 to stockholders of record at the close of business on September 19th, 1940. Checks will be mailed.

DAVID BERNSTEIN
Vice President & Treasurer

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MOORE PUSH-PIN CO., Philadelphia, Pa.

This is under no circumstances to be construed as an offering of these securities for sale, or as an offer to buy, or as a solicitation of an offer to buy, any of such securities. The offer is made only by means of the Prospectus.

\$15,000,000

THE DOW CHEMICAL COMPANY

Debentures

comprising:

\$7,500,000

Ten Year 2¼% Debentures

Due September 1, 1950

Price 101½% and accrued interest

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\$7,500,000

Serial Debentures

Due Annually in Amounts of \$750,000

Maturity	Interest Rate	Maturity	Interest Rate
September 1, 1941	.35%	September 1, 1946	1.60%
September 1, 1942	.65%	September 1, 1947	1.75%
September 1, 1943	.90%	September 1, 1948	1.90%
September 1, 1944	1.15%	September 1, 1949	2.00%
September 1, 1945	1.40%	September 1, 1950	2.05%

Price 100% and accrued interest for all maturities

Copies of the Prospectus may be obtained from such of the several underwriters, including the undersigned, as may legally offer these securities in compliance with the securities laws of the respective States.

SMITH, BARNEY & CO.

September 11, 1940.

selling all right but who feel jittery about the future.

Unusual interest will be accorded the semi-annual leather show sponsored by the Tanners' Council of America, to be held Monday and Tuesday at the Waldorf-Astoria in New York City. International disturbances have focused attention on America as a source of creative fashions, so style trends and color coordination will provide subjects for many of the speeches on the National Shoe Retailers' Association program, to be held in conjunction with the show. The 63 exhibitors represent over 90% of the upper and fancy leather output of the U. S.

Plenty of Wheat

THIS HAS BEEN a strange year for wheat. In the late months of 1939, the Great Plains suffered in the grip of the severest winter drought ever experienced. It looked like disaster for winter wheat. Even this spring things still were pretty bad.

Then the weather changed. Winter wheat came through to fair yields in places where farmers had almost given up hope. The weather was too hot and dry in much of the spring-wheat belt, but in late July improvement came there too. And now it appears that August was very kind indeed to the spring crop.

Successive advances pulled the government's estimates of winter wheat up to 555,839,000 bu., just a trifle under the 1939 crop. Spring wheat, which was put at 204,784,000 bu. a month ago, now gets an estimate of 227,721,000. Total wheat in the 1940 harvest will be 783,560,000 bu. against 754,971,000 last year, according to this week's crop report. And this country has on hand old wheat totaling some 280,000,000 bu., bringing total supply to about 1,060,000,000 against ordinary domestic requirements of not more than 700,000,000.

Moreover, Canada's crop has recovered right along with this country's. The Dominion Bureau of Statistics puts the crop at 534,000,000 bu.

Rubber for Uncle Sam

TO ASSURE the United States of its normal rubber requirements and to enable the government to add to its stockpile, the international rubber cartel this week raised shipping quotas from 85% to 90% of standard tonnages for the fourth quarter of 1940. Getting ship space for the cargoes now looms as the main problem. Steadily the United States has increased the amount of rubber transported in American flagships, due to wartime conditions, until more than one-fourth of our imports has been coming in our own ships. Now ship lines in this country are reported in authoritative circles to be arranging to shift additional tonnage into the Far Eastern trade.

BUSINESS ABROAD

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U. S. Heads for Tokyo Showdown

Rigid embargo on scrap or oil exports would force matters to an issue, but final decision may hinge on Russia, or on new Anglo-American naval policy in Pacific.

JAPAN BOUGHT \$32,592,500 worth of iron and steel scrap in the United States last year, and another \$3,000,000 worth in other world markets. She got 2,024,264 tons out of our total scrap exports of 3,600,000 tons. Last year, our steel industry absorbed 32,400,000 tons of scrap.

These figures provide the background for the latest threat by Washington to stop all exports of iron and steel scrap.

The steel industry declares this embargo necessary to prevent a rapid increase in scrap prices because of the soaring demand of the armaments boom. (Steel scrap prices in virtually all districts of the country made an advance of from 50¢ to \$2 a ton last week.) The National Defense Advisory Commission is expected to recommend an export embargo in the near future. But the real decision will be made by the State Department, which has maneuvered to protect American investments and trade in the Orient

ever since Japan invaded Manchuria in 1931. Three years ago when Japan renewed its campaign against China by attacking in Shanghai and the Yangtze Valley, the United States countered by granting a \$25,000,000 Export-Import Bank loan to the Chiang Kai-shek government, admittedly to permit the purchase of American trucks and gasoline for hauling supplies over the Burma road.

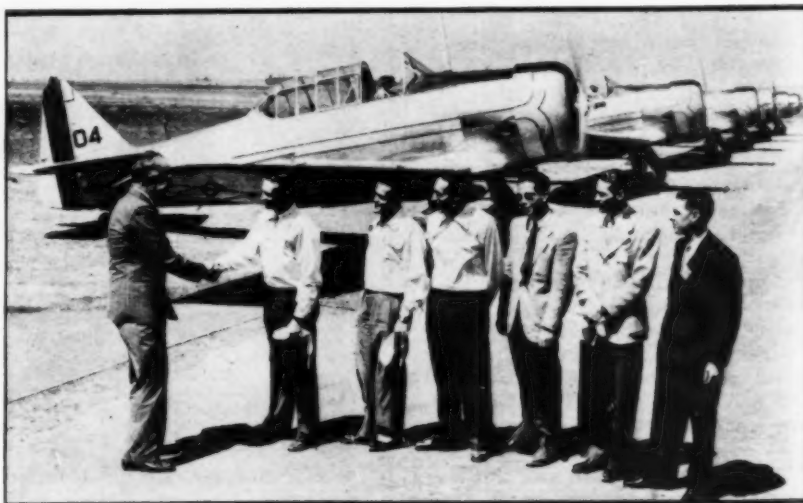
A little later a moral embargo was imposed on the sale of airplanes and parts to "aggressor" nations, with Tokyo the obvious target.

Then the entire U. S. fleet was moved into the Pacific and based at Hawaii.

Japan Extends Control in China

As new tensions arose, Washington extended the list of exports which could leave this country only when licensed, and put an immediate embargo on exports of aviation gasoline and the means

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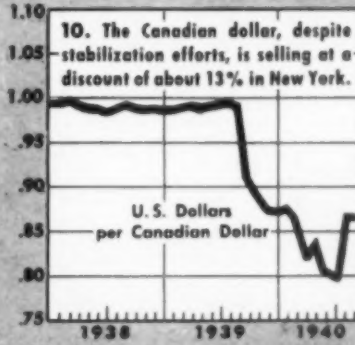
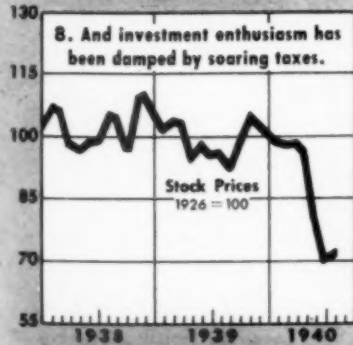
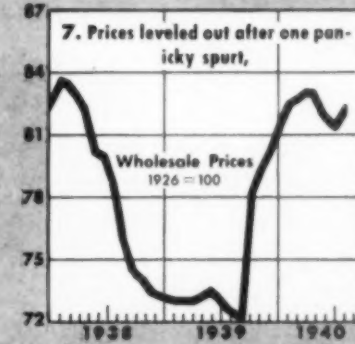
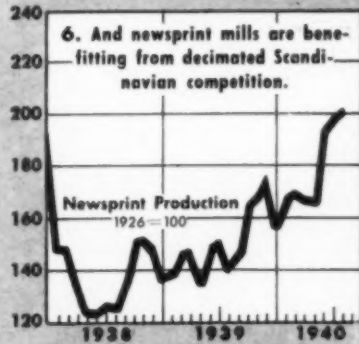
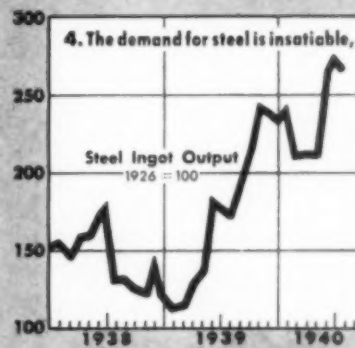
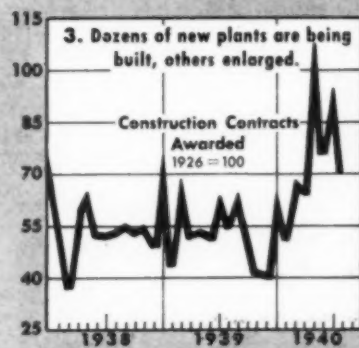
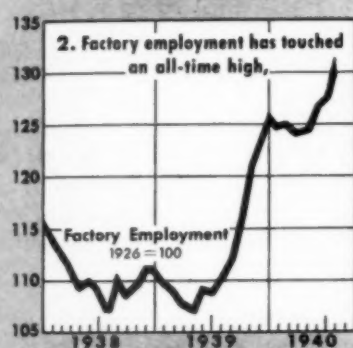
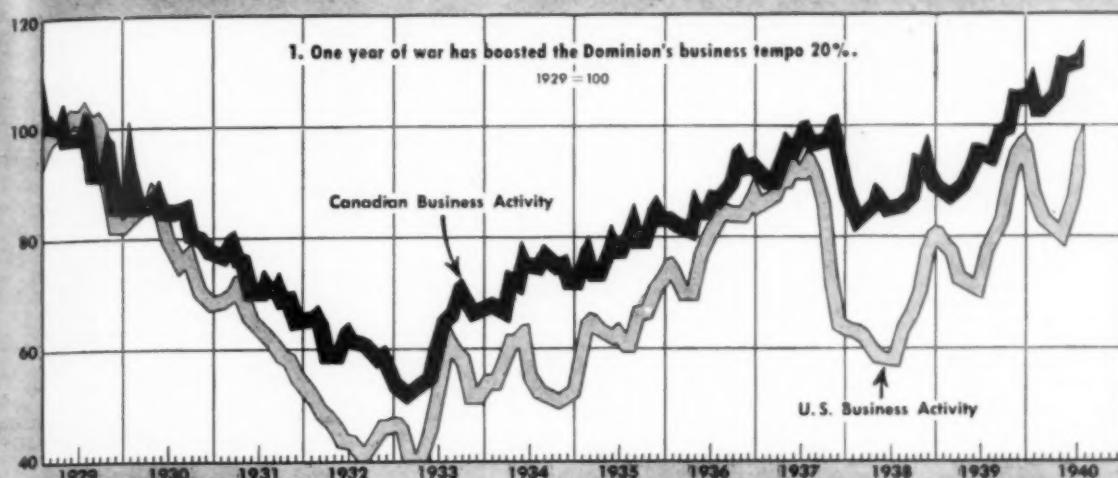


Wide World

Six North American Aviation Co. low-wing attack bombers, destined for service in the Brazilian Army Air Corps, will leave the Los Angeles Airport next week on the first leg of a 10,000-mile delivery flight—

a flight that's significant of the new cooperative effort being made by the U. S. and South American nations toward Western Hemisphere defense. Officers of the Brazilian army (above) will be at the controls.

CANADIAN BUSINESS AFTER ONE YEAR OF WAR





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of producing it. Priorities were set up in the machine-tool industry, with Japan and Russia at the end of the list.

Meanwhile Japan has extended its control along virtually the entire China coast, up the rich Yangtze valley to within easy bombing distance of Chiang Kai-shek's fugitive capital at Chungking, and south to Hainan, huge island opposite French Indo-China. During tense May and June, Tokyo forced British authorities to agree not to allow further shipments of Chinese goods over the Burma road, and to withdraw troops from all the British-held special concessions in China north of Hongkong.

Signal for new diplomatic maneuvering by Washington was the collapse of Holland and France, and the resultant fear that Tokyo would move into French Indo-China and the Dutch East Indies. Secretary Hull has warned Nippon at each turn of events, and Congress has armed the President, through the export licensing power (BW — Jul 13 '40, p. 44), with the means of enforcing Washington's wishes or of forcing Japan to pay a high price for ignoring them.

Signal—Oil or Scrap Embargo

American critics of Japan revealed a few weeks ago that this country has made no serious effort so far to enforce the scrap embargo—witness the picture recently released of a shipment of 12,000 tons of iron rails being loaded at San Francisco on a Japanese freighter (BW—Sept 7 '40, p. 30).

The embargo on planes and aviation gasoline has been a little more effective.

The issue before Washington today is whether or not it is ready for a showdown with Tokyo now. If it is, the signal which will touch it off is a rigid embargo on exports of oil or scrap.

Insiders are inclined to believe that Washington still will withhold licenses on only a few current shipments. By the time the effect of this scare has worn off, new overtures to Moscow may have produced results and Washington and Kremlin authorities may be ready to synchronize their moves in the Orient. If by that time Washington is also ready to announce a new Anglo-American naval policy in the Pacific which will allow the United States to use such British naval bases as Singapore, the whole picture will be changed.

Conserving Aluminum

Canada rules it can no longer be used in cooking ware. Exportable power supply reduced.

OTTAWA (Business Week Bureau)—War hit the Canadian housewife this week when the Dominion government ruled that aluminum could no longer be used for making cooking utensils.

Copper is being substituted for alum-

\$1-a-Year Man



Blank & Stair

Joseph Rovensky, vice-president in charge of the foreign department of the Chase National Bank, this week took leave of absence from his New York post to accept a \$1-a-year job as assistant to Nelson Rockefeller, co-ordinator of commercial and cultural relations with South America. Appointment gives practical banking a voice in the financing of new industrial projects below the border.

innum immediately in a transmission line now being built in Ontario. In recent years, all power lines erected in Canada have used aluminum. Canadian lines have to be strung long distances and the strength of the metal in relation to its weight has permitted wider spacing of poles. Also, the lines have stood up better in Canada's snow storms.

Plan to Double Capacity

In the last three years, Canada has added 50% to its aluminum-producing facilities. Now, with Britain pouring orders for planes into Canada, and with the Dominion's own defense demands soaring, plans are nearly completed for doubling present capacity. Three years ago the Aluminum Co. of Canada was using one-eighth of all electricity produced, or 1½ times the average load of Greater Montreal, which has a population of a million and a quarter and many of the Dominion's largest factories. The electricity required to make one ton of aluminum would supply the average home with light, heat, and power for 25 years, or make 18 tons of newsprint.

Power plant facilities in Quebec are adequate to meet the new demand, but it will reduce seriously the exportable power needed now by Ontario. This accounts for the dwindling resistance in

Canada to the St. Lawrence waterway project which most Canadians now believe will be carried out in the near future and which will supply the country with important additions to its power supply.

Canada's tourist business, after lagging during the early summer at dismally low levels, is booming now. Montreal reports the best Labor Day week end in years, and the Laurentians are having a roaring late season business, with guests generally spending at least as heavily as before the war.

From the standpoint of Canada's financial and exchange position, the late influx of hordes of tourists has been of extreme importance. It is virtually assured now that Canada's net income from foreign visitors will be at least as good as last year. It is estimated that the ban on exchange for Canadians who might want to take pleasure trips to the United States will save the country at least \$75,000,000 this year. This will more than offset the reduction in tourist income from Americans during the early part of the season.

Berlin Makes Haste

Germans work feverishly to reorganize European economy, stressing the Balkans.

BERLIN (Wireless) — Though Germans are having their own taste of day-and-night aerial bombardments, everyone's interest this week is concentrated on the gigantic air battle over the British Isles.

Behind the scenes, however, officials are working feverishly—with one anxious eye on Moscow—to get the economic reorganization of continental Europe in hand. Russia's recent big trade deals in the Balkans and in Scandinavia, followed by the unexpected agreement with Hungary, have warned Germans that they must move quickly to consolidate their gains in the Danube basin.

Little is known yet about projects in western Europe. Most of these are obviously a matter of speeding up a shift over from whatever was originally manufactured to turning out what is most urgently needed now by the German war machine.

New "Colonies" in Southeast

But in the Balkans it is a different matter. Here Berlin is beginning to work out its new economic program for Europe.

The fringes of Europe are never to become great industrial regions, but are to supply Germany with food and German industry with raw materials. Agricultural output in the Balkans must be raised. At present, the yield of most Balkan fields averages less than half the yield on German farms, though the soil is naturally much richer than in Germany.

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to the levels achieved by the Nazis through the use of fertilizers and scientific farming methods, Balkan national income can be raised from the present \$6,000,000,000 to an estimated \$8,000,000,000. And because Germany is expected to absorb all of this additional output, the Reich expects to sell another \$2,000,000,000 of German manufactured goods in that part of the world.

Model for the new farm rationalization drive is the plan put into effect a few years ago by the German chemical trust. Lacking adequate supplies of vegetable oils for its business, the company sent economists to scout the Balkans for possible new supplies. When it was found that Rumanian soil and climatic conditions were particularly good for growing soybeans, farmers were offered seeds, free scientific advice for growing the new crop, and a guaranteed market at a fixed price—not just for one year, but for several years.

BRIEFED FROM THE CABLES

Moscow (Cable)—Culminating nearly four months of negotiations, a trade agreement between Russia and Sweden was signed last week in Moscow by Foreign Trade Commissar Mikoyan and Swedish Economics Minister Eriksson. Terms of the pact include extension of a \$24,000,000 Swedish credit, for five years at 4½%, to Moscow. This sum is to be used during the first two years for purchase of Swedish machine-tool equipment.

In 1938 Swedish imports from Russia were only \$3,000,000, while Russia was importing \$4,300,000 of Swedish goods. Estimated first-year results of the trade agreement call for over \$25,000,000 of Swedish deliveries to Russia, which will in return export approximately \$18,000,000 of petroleum products, grains, fodder, manganese, and other raw materials to Sweden.

Most important result of the pact for Sweden is Soviet petroleum. Cut off entirely from overseas imports of oil, Sweden has been relying on a recent 5,000-ton-per-month agreement with Rumania—inadequate to satisfy its annual 1,500,000-ton requirements. Soviet imports will be chiefly wheels on axles and other railway equipment which Russia has been having difficulty in obtaining because of the war.

LONDON (Cable)—Due to time losses occasioned by continuing air raids, with resultant fall in industrial output, England has finally returned to a warning system for industrial areas which was followed in the last war. Under the newly-instituted system, aircraft spotters will be placed on factory and office roofs. Employees working inside will remain at their jobs, ignoring the public air-raid sirens which merely indicate that enemy planes are in the vicinity, until the spotter located on the roof ascertains that the immediate neighborhood of the factory is in danger of attack.

THE TRADING POST

Add Two to "Three Letters"

IN THE ISSUE of July 20, under the head "Three Letters," I printed on this page some correspondence between an industrial engineer and an applicant for a job in the field of "motion study." These letters aroused considerable interest. Here are comments from two readers who feel that the engineer was not altogether fair to his applicant. One is from California, the other from a Wisconsin advertising executive.

* * *

From California:

"The three letters you quoted in your July 20 issue are typical of a situation and I am moved to disagree. I don't think the engineer was quite fair.

"The letter of application indicated many desirable qualities and if I had been the engineer I would have at least granted an interview and shown a more helpful, friendly attitude. I am more inclined to believe that the engineer's attitude displayed a lack of perspective and an impatience and intolerance that unfit him to judge his fellow-men.

"That letter shows ambition and originality. It shows humility, which the engineer mistakes for self-satisfaction and condemns. But in his next paragraph he condemns the applicant because he has enough ambition to desire something better than his present position offers. The engineer has a complex of his own, because of his inability to reach a conclusion on the fitness of applicants for certain jobs, so he makes the applicant the 'whipping-boy' for his theories and beliefs.

"At times I have had the same opinion regarding our present crop of young men. But when it comes to cases I have found myself wrong too many times. You and I grew up in a different world—a world that had a place for us as soon as we completed our educations. We cannot judge these youngsters by our own standards and experiences.

"These kids of today are more resilient, more realistic and more adaptable than we were. They expect less from the world and have no illusions. They are willing to work hard at jobs you and I would have scorned. Don't judge American youth by the lunatic fringe that makes up the American Youth Congress and other vociferous minority groups.

"To my mind the principal monkey-wrench in the job-finding machinery is the intolerable and legalized monopoly of jobs now in the hands of labor-union leaders. For years it has been practically impossible to learn one of the crafts for which there now is a critical shortage of skilled workers created by the unions.

Thousands of young men today are denied the privilege and freedom of American citizenship to work, because of union restrictions—first, on apprenticeship and second, on holding a job without paying tribute to some business agent.

"There is also a growing inclination on the part of employers to demand trained workers without stopping to consider that everyone must start somewhere to get training. The schools can't do the job completely because they necessarily are a decade behind in their program. They cannot foretell when a boy starts on a mechanical course that there will be a surplus of mechanics when he is graduating, with a dearth of mining engineers. It is too much to expect of schools when industry is confused by the rapid trends of the day. Every large employer must expect to do a certain amount of training just as the aviation industry is doing today."

* * *

From Wisconsin:

"I have just read the three letters in 'The Trading Post' of the July 20 issue, and while the industrial engineer wrote a long letter to the applicant I can't help feeling that he did not take great pains to do it. In fact, he admits in his own letter 'it burns me up to get the sort of letters I have been receiving, etc.', so he evidently was working off his irritation instead of recognizing the lad's letter as a real challenge to his better nature and generous qualities.

"If businessmen generally reacted in this way towards misdirected, misguided, and inexperienced young men it wouldn't take long to fill the ranks of all the C.I.O.'s, the 'wobblies', A.F.L.'s and all the rest of them. I know your correspondent probably felt justified in writing as he did, but it would have been much better if he had left off with his first sentence instead of developing in detail the fact that this misguided, although apparently sincere and ambitious youth *did* go to the wrong man."

* * *

The attitude of these gentlemen does credit to their human instincts. It is bound to be helpful to any youngsters who turn their way for help. I suspect that the engineer's impatience results from having to handle so many such cases and from the applicant's emphasis on the "give me a break" and the "neither relations nor money" appeals. Neither of these wins three rousing cheers from most of us. But this business of presenting one's services to strangers most effectively is an art in itself, too involved, I fear, to tackle in this space today.

W.T.C.

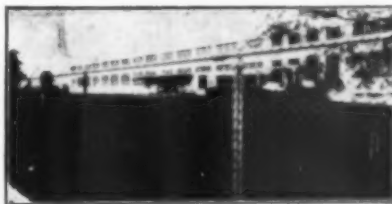


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BUSINESS WEEK

With Which Is Combined The Magazine of Business

September 14, 1940

More Light on Instalment Credit

LIKE BASEBALL, instalment credit is essentially an American institution. Though the history of buying on time runs back to antiquity (*BW—Nov 13 '37, p. 45*), it was not until the automobile (another peculiarly American institution) came along that instalment selling developed into big business. Thereupon it became the subject for a multitude of books and dissertations by college professors; and in 1937 and 1938 it was common talk in Wall Street that instalment credit influenced the business collapse of that time.

Unfortunately, for purposes of refutation—refutation of the instalment-credit pros as well as the cons—facts have been few and far between. In November, 1937, *BUSINESS WEEK* observed that “no absolute judgment on the merits of instalment credit” was warranted until statistics on “the volume and the distribution among classes of workers” were available. At that period, the best data that could be had were Department of Commerce estimates on total instalment credit sales—and the figures admittedly were far from definitive.

But now, thanks to a financial grant from the Association of Reserve City Bankers and the Rockefeller Foundation, some comprehensive data are at hand. The National Bureau of Economic Research has released several volumes to show how much instalment credit is outstanding, what type of people use it—for what, and where (charts, pages 34, 35).

An outstanding fact is the widespread use of instalment credit: One out of every four families take time to pay. The major concentration, as you'd expect, is among the lower- and middle-income families—\$500 to \$2,000 a year; yet families with incomes of \$5,000 and over are not above paying for their automobiles and refrigerators by the month. And by no means is it essential to buy something to go into instalment debt.

WHEREAS, BACK IN 1929, four out of every five dollars of instalment debt arose from a retail purchase of some kind, nowadays the ratio has dropped to two dollars out of three. The explanation is the rise in consumer lending, repayable in instalments, by commercial banks, like New York's National City or California's Bank of America; or personal finance companies, like Household Finance; or industrial banks, like the Morris Plan; or credit unions, and so on. The low-income family can now get banking accommodation directly, and is using it on an expanding scale.

The National Bureau's data indicate that instalment debt is the result of the business cycle rather than a cause of it. When payrolls and employment

are expanding, husbands and wives are willing to “mortgage” a larger proportion of their income. But when business is rolling downhill they are hesitant about going into debt, and so also are the lenders hesitant about extending credit. The following table nicely demonstrates the point; it shows that people are willing to tie up a larger proportion of their income in good business years, while in poor business years they concentrate on wiping out a larger proportion of their instalment obligations:

Year	Business Activity*	Credit Granted as % of Income**	Repayments % of Income**	Net Change
1929	127.3	9.40%	8.54%	.86%
1930	103.9	8.55	9.43	— .88
1931	83.4	7.84	8.98	— 1.14
1932	60.7	6.09	8.12	— 2.03
1933	68.8	6.73	6.44	.29
1934	73.6	7.28	6.65	.63
1935	85.7	9.24	7.53	1.71
1936	104.7	10.97	9.07	1.90
1937	111.9	10.67	9.89	.78
1938	86.3	9.66	10.73	— 1.07

* Business Week Index. ** Income received by those in \$5,000-and-under income group; this group embraces 97% of all instalment-credit users.

AS YET, the Bureau has not brought its figures up to date. Latest monthly statistics are for the year 1938. But the Department of Commerce is expected to carry on the work, and ultimately may develop complete monthly figures on total instalment credit outstanding by types of lender. That would enable economists, statisticians, and students of the subject to follow the course of time-credit to consumers with facts, instead of month-to-month guesses on just how large a part time-buying is playing in retail sales.

Right now, moreover, monthly data are especially desirable. Though factual proof is lacking, it seems reasonable to assume—in the light of the rapid expansion in general business since 1938—that instalment credit outstanding has reached a new all-time high. So it would be well to have prompt information to determine regularly what proportion of consumer income is being mortgaged to meet time payments.

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